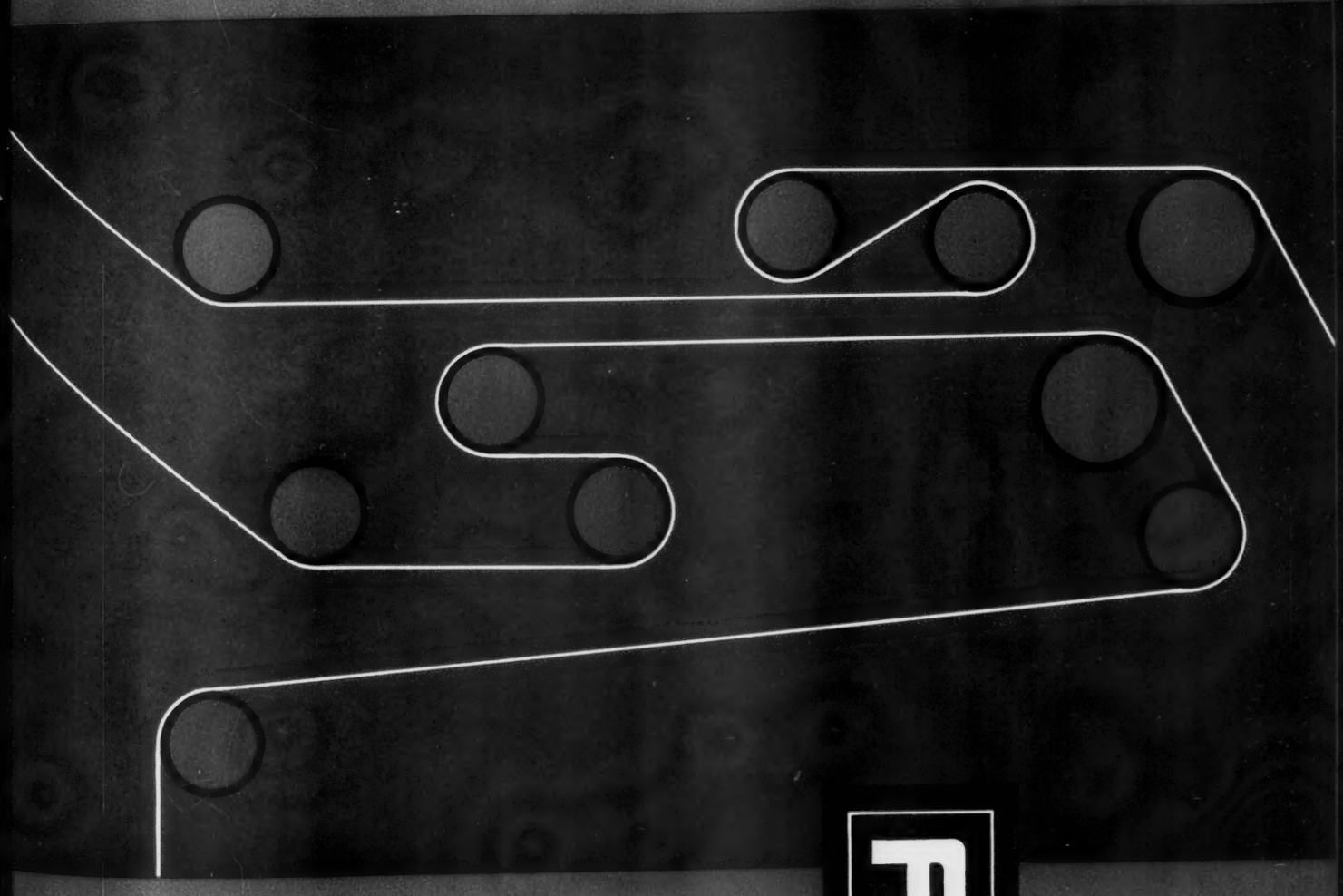
PRINTING EQUIPMENT

Engineer



MARCH 1949

THE SEYBOLD HEAVY-DUTY 40"

cuts along the line of least maintenance!

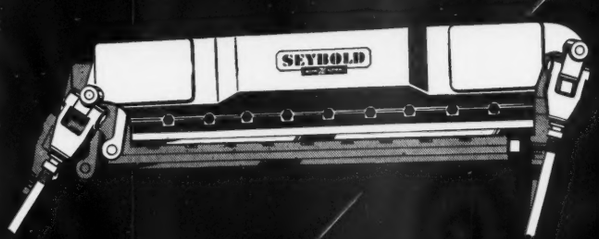
Three years of on-the-job performance have proved Seybold's exclusive Z-Action. Z-Action was introduced in 1946 on the now-famous, Seybold "Sixty" paper cutters.

Z-Action is the Seybold method of putting the knife through the pile. Because Z-Action works *with,* not *against* natural forces, the owner of a Seybold can be sure of longer knife life and less frequent sharpenings.

Cutting with Z-Action is accurate... without chatter marks... without uncut sheets at the bottom of the pile. Z-Action's line of shear means less wear on moving parts and fewer service bills. It adds years of life to your machine.

Z-Action begins at 40 inches — the Heavy Duty 40" paper cutter has the same basic design as the larger Seybolds. It's a quality cutter available in the small-size, low-price field.

There are a few Heavy-Duty 40"'s ready for delivery *right now!* Contact your nearest Harris-Seybold office.



because it has Z-ACTION

HARRIS-SEYBOLD

General Offices—Cleveland 5, Ohio

Boston, New York, Philadelphia, Cleveland, Dayton, Atlanta, Dallas, St. Louis, Twin Cities, Chicago, Los Angeles, San Francisco, Toronto, Montreal, Vancouver.

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STA-HI CORPORATION o 1020 CROCKER ST. • LOS ANGELES 21

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New ATF FLO-MIX *Dry Powder* NON-OFFSET GUN

Trouble-free operation

Now...

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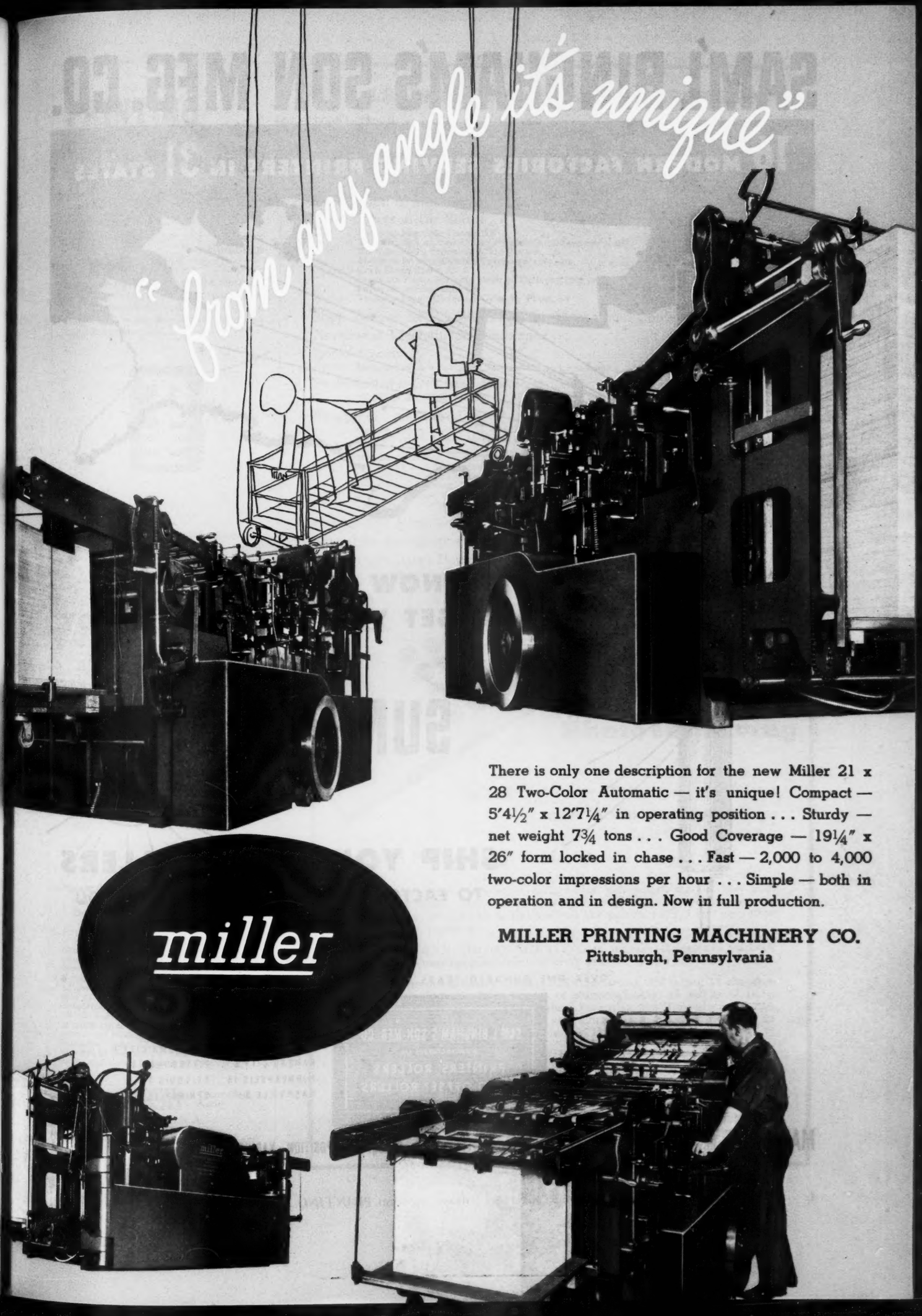

There is only one description for the new Miller 21 x 28 Two-Color Automatic — it's unique! Compact — 5′4½″ x 12′7¼″ in operating position . . . Sturdy — net weight 7¾ tons . . . Good Coverage — 19¼″ x 26″ form locked in chase . . . Fast — 2,000 to 4,000 two-color impressions per hour . . . Simple — both in operation and in design. Now in full production.

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Pittsburgh, Pennsylvania

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PRINTING EQUIPMENT *Engineer*

Volume 77 Number 6

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

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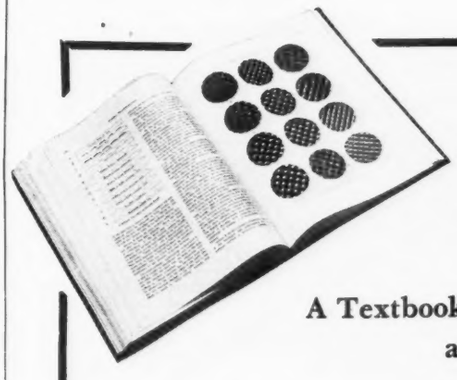

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A Textbook for Printing's Production and Mechanical Executives

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1276 West Third Street **Cleveland 13, Ohio**

BUFFALO EVENING NEWS INSTALLS NEW GOSS HEADLINER PRESSES

Twelve Goss Headliner units and three pairs of Goss Uniflow folders recently installed at the Buffalo Evening News make a total of 24 modern Goss units and six pairs of folders in their pressroom.

Twelve Goss anti-friction units and three pairs of folders had been installed just prior to the war. During the past 26 years The News has purchased 42 Goss units and 10 pairs of folders.

The new presses have a guaranteed top speed of 60,000 per hour and the latest improvements, including streamlined unit enclosure, continuous feed ink system, and fully enclosed automatic lubrication.

An added feature is *tension plate lock-up* which assures longer plate and blanket life . . . reduces web breaks . . . and improves printing quality. For full details about this and other Goss installations write . . .

THE GOSS PRINTING PRESS COMPANY, 1535 S. PAULINA ST., CHICAGO 8, ILLINOIS
DUPLEX DIVISION: BATTLE CREEK, MICH. **GOSS PRINTING PRESS CO., LTD., PRESTON ENGLAND**

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Of unquestioned value are the graceful Ludlow italics and scripts which add color and distinction to the printed page, and since these as well as all Ludlow typefaces are cast in sturdy sluglines, the typographer specifies and uses them without hesitancy.
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Standard... or *Tensionplate*

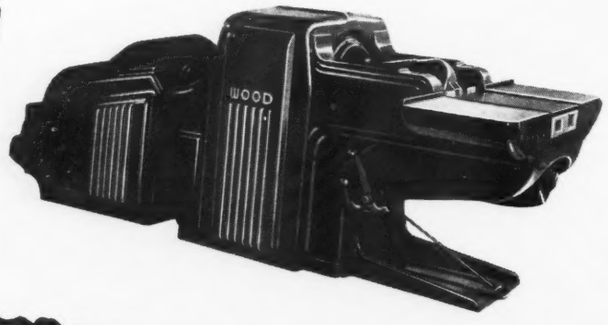
WHICH TYPE OF LOCK-UP DO YOUR PLATES CALL FOR?

WHICHEVER IT IS . . . WOOD HAS THE MACHINE TO DO THE JOB QUICKLY AND ACCURATELY

★ THE WOOD HEAVY DUTY AUTOSHAVER

- Massive and rugged
- Two shaving knives, adjustable independently —for roughing—and for finishing
- Trimming tools mounted well back to avoid chip accumulation
- Double shaving — had by throwing lever. Plates following will be double shaved, until lever is returned to original position
- Plate, also shaving arch, cooled by water— supply adjustable
- Automatic oil spray keeps knives chip free
- Direct gear drive from motor assures smooth operation

★ TENSIONPLATE AUTOSHAVER



These same advantages are found in the Tensionplate Autoshaver — plus milling of pockets to accommodate tension plate lock-up fingers.

IF IT'S Wood IT'S GOOD

Write us for further information about these and other Wood Machines for the newspaper stereotyping and press rooms.

WOOD NEWSPAPER MACHINERY CORPORATION
PLAINFIELD, NEW JERSEY
Executive Offices, 501 Fifth Avenue, New York 17, N. Y.

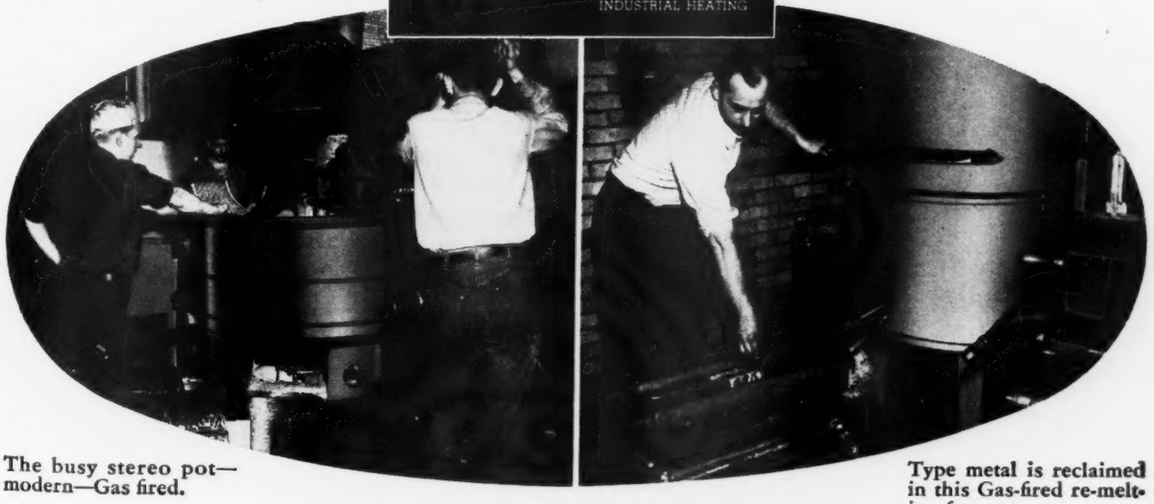
Modern plant of The News Tribune, Beaver Falls, Pa.

MODERN PUBLISHING calls for the same production-line techniques and equipment efficiency to be found in any successful manufacturing company. When The News Tribune at Beaver Falls, Pennsylvania, was modernized, the owners streamlined the mechanical department with equipment designed to accomplish this production-line operation.

Two of the important behind-the-news tasks were assigned to GAS, ideal fuel for all types of heat-processing in the graphic arts. The application of GAS to stereotype and type-metal melting operations is not unusual—the important point is that over a long period of experience mechanical superintendents have found that the speed and controllability of Gas Equipment is a real factor in press-scheduling. The News Tribune's pressroom superintendent, Hugh E. March, expresses his preference for GAS as follows: **"I've seen lots of equipment but GAS always has the edge for quick-heating and real economy. We publish 15,000 copies of The News Tribune every day and our Gas Equipment is mighty important in getting that job done on time."**

In present-day newspaper publishing modern Gas Equipment renders essential service. But GAS is also an important factor in other graphic arts processes, such as ink-drying, paper-curing, electrotyping. You'll find efficient Gas Equipment available for these and other heat-processing operations.

MORE AND MORE...
THE TREND IS TO GAS
FOR ALL INDUSTRIAL HEATING



The busy stereo pot—modern—Gas fired.

Type metal is reclaimed in this Gas-fired re-melting furnace.

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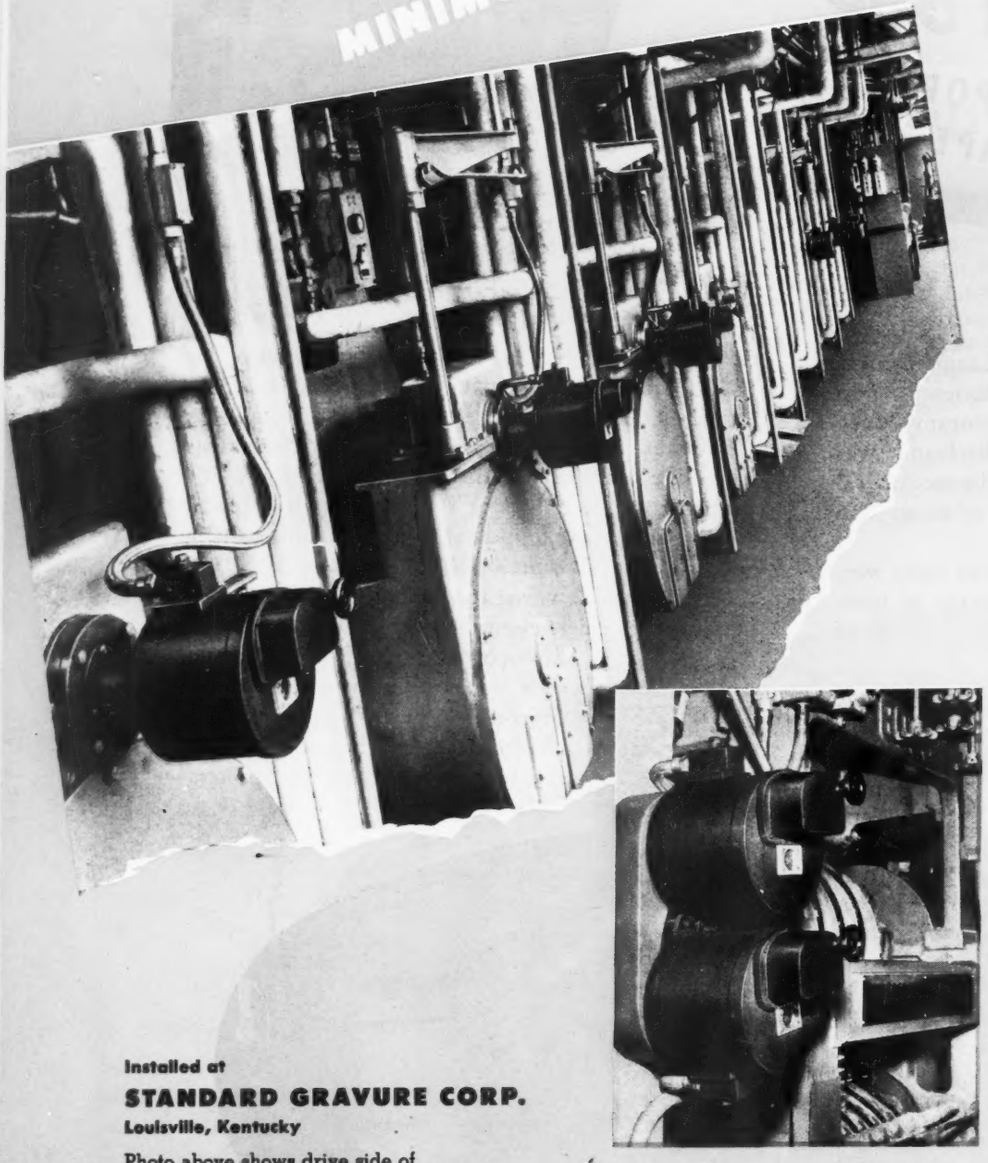

Installed at

STANDARD GRAVURE CORP.

Louisville, Kentucky

Photo above shows drive side of press with six Hurletron Selector Switches in position. Inset photo shows compensating motor controlling one of the folder units.

The complete system performs the following operations:

1. Electronically controls the registration of the spot color to the black by means of web compensation on one side of the web.
2. Controls the back-up register of the monotone sides of the web to the four color side.
3. Controls succeeding colors (red, blue, black) so as to register to the yellow.
4. Controls cut-off as the web enters the folder.

Broad claims? Not at all. They're down-to-earth facts based on the performance of Hurletron Controls at the plant of the Standard Gravure Corporation, Louisville, Kentucky.

In the words of Mr. Les Newmeyer, Superintendent of Standard Gravure's pressroom, "Registration is maintained at all operating speeds. Normally we run at 32,000 copies per hour. Shutdown losses are reduced to a minimum. When one run of a weekly is manually controlled we experience a waste of from 10% to 11%. Our controls save up to 50% of this waste."

Original installation at this plant was four Hurletron Controls on a single press. Results were so satisfactory that 26 additional units were installed. The equipment provides for automatic control of four colors on one side of the sheet and a spot color in monotone on the other, as well as folder cut-off control. These controls are electronically operated. They're automatic, positive, accurate, dependable. Yet, when desired, all controls and adjustments may be operated manually.

Hurletron Circumferential Registration Control Equipment is now in successful operation in the majority of color gravure plants of the country. The experience of Standard Gravure Corporation is typical of all of these installations. In fact, in every case, the savings effected are rapidly paying the entire cost of the equipment.

If you didn't see the article in Printing Equipment Engineer describing this installation, we'd like to send you a copy. It fully explains the equipment, its functions and operation and includes explanatory diagrams and photographs. Write today.

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Circumferential

COLOR REGISTER CONTROL

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MODELS 3-A

and **45**

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Special 4-COLOR W OFFSET P

SPECIFICATIONS

Sheet size: approximately 30″ x 40″

Speed: over 8,000 cylinder revolutions per hour

Press consists of four units in tandem, printing 4 colors one side, or 2 colors 2 sides

Adjustable trimmers on both edges of web

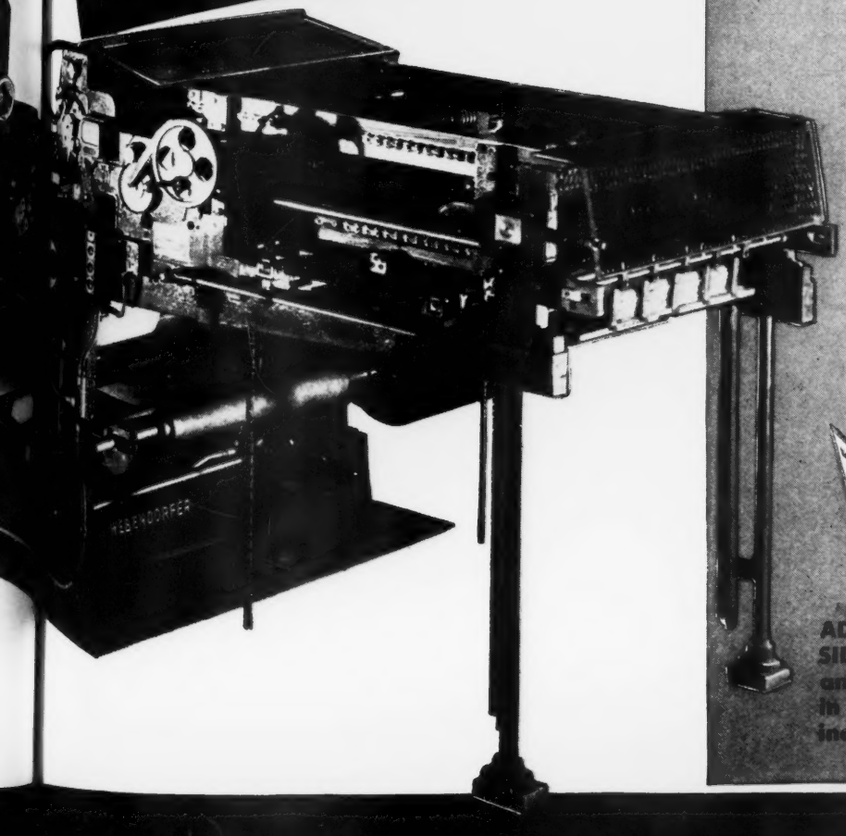
Delivery: flat sheet face up, or re-wound

Plate cylinders are adjustable side-wise and web-wise, thus cutting down makeready time

Automatic lubrication

WEB-FED PRESS *by*

ATF-WEBENDORFER



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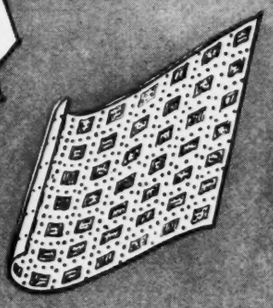
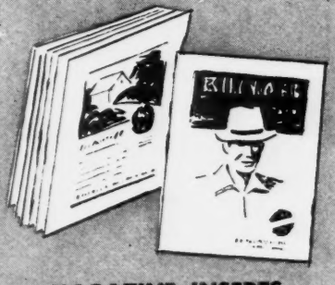


LABELS

BOX WRAPS GIFT WRAPS



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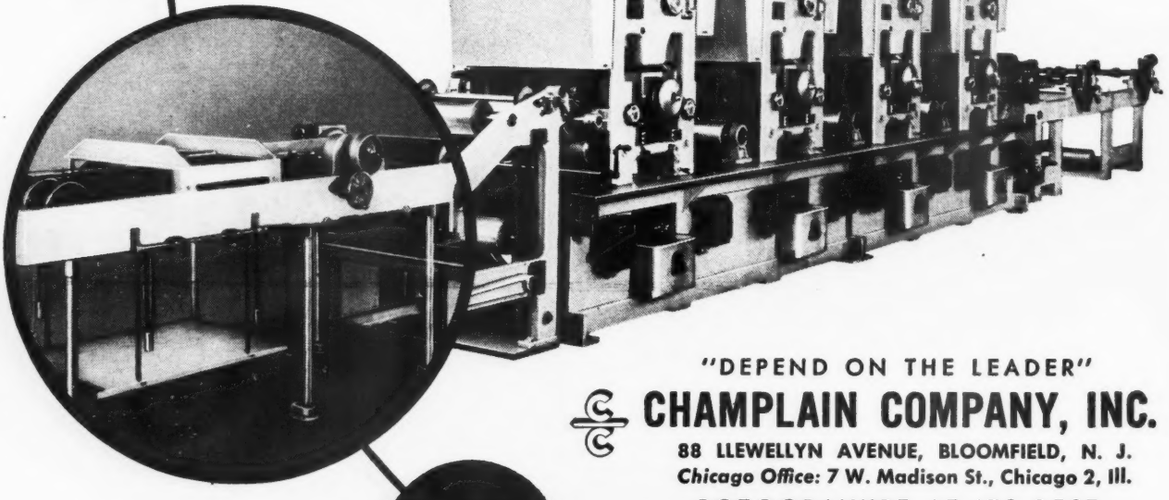
Accurately square cutting to ± 1/64th inch tolerance, Champlain Rotary Sheeters handle stocks from glassine to cardboard. 360° planetary running register or "Registron" allow for push button or full electronic control of color register. Sheets are delivered cut to exact copy size. This means waste is practically eliminated. Entire cutting mechanism is adjustable for varying sheet sizes *anywhere* between maximum-minimum range.

Send samples of your production to us — let Champlain show you how to do the job—better, faster, more profitably.



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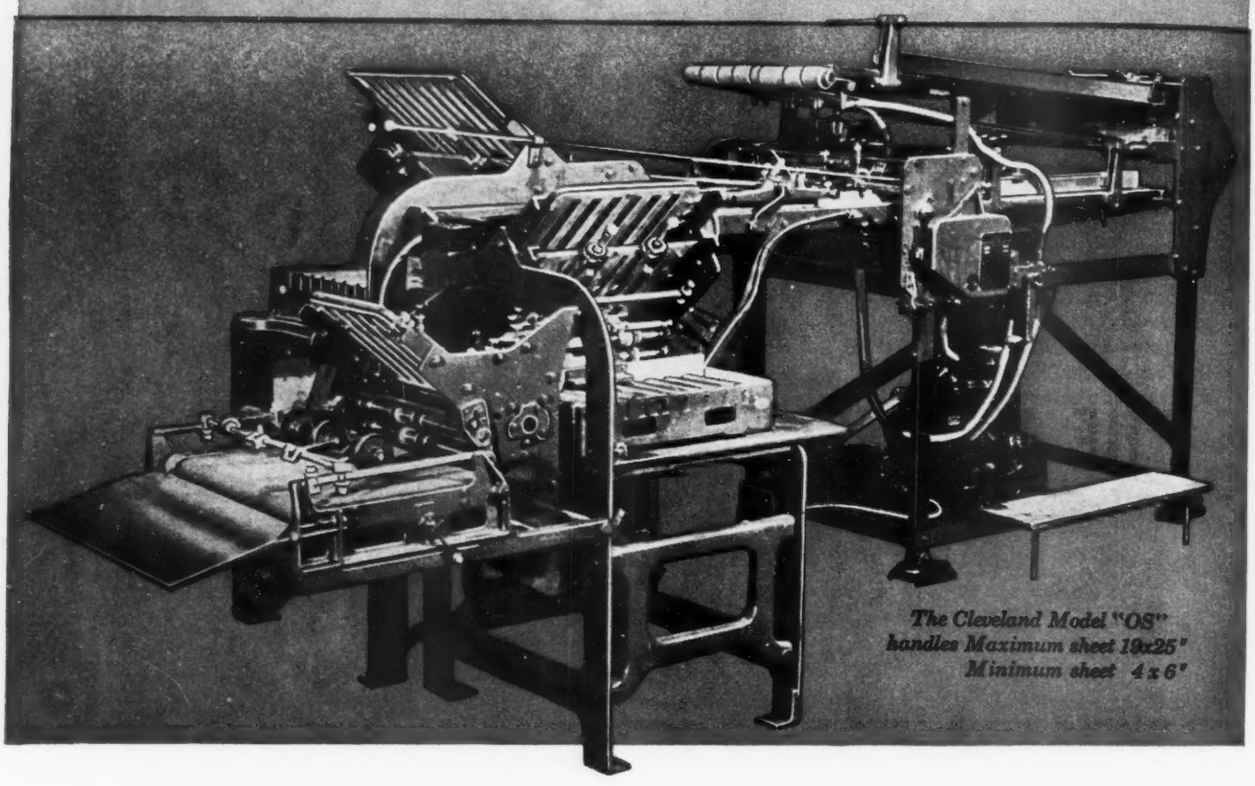
In Small and Medium-sized Plants
THIS FOLDER IS AN INVALUABLE AID!



The Cleveland Model "OS" handles Maximum sheet 19x25" Minimum sheet 4x6"

Designed, in capacity, floor space and cost, to meet the requirements of small and medium-sized plants, Cleveland Model "OS" offers a combination of both circular and right angle book folding.

This new folder has a range of flat sheet sizes from 4 x 6" up to 19 x 25". It will deliver the same good service and high speed—and has the same productive capacity as the larger Clevelands. Convenient adjustments adapt it to the quick changing required to handle short run work economically.

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Features include Continuous Air Wheel Feeder, diagonal roller feed table and cross carriers, two speed device in parallel section, slitter shafts in all folding sections for scoring, perforating and slitting, and provision for folding two-up work in the right angle section.

Its reception by the trade proves that Cleveland Model "OS" meets a definite need, at a cost within the range of the small and medium-sized plant.

The complete line of Cleveland Folders includes *seven* models, one or more of which will bring new production economies to your plant.

We will be glad to tell you more about these—and other Dexter and Christensen Machines that serve up-to-date printers and binders.

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SPEED.....
DIMENSIONAL STABILITY.....

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CHEMCO PHOTOPRODUCTS COMPANY INC.

FACTORY and GENERAL OFFICES GLEN COVE, NEW YORK

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Camden Courier-Post
Binghamton Press
Buffalo Courier-Express
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New York Herald Tribune
New York Morning Telegraph
New York Daily News
New York Times
New York Post
Wall Street Journal
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Philadelphia Bulletin
Philadelphia Daily News
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Pittsburgh Press

1. Publishers now realize more than ever the added value of Matrix Contrast Service due to their greatly increased operating costs. The reduction of approximately one-third of all errors in linecasting machine operation means valuable minutes saved not only in machine and operator time, but also time of proofreaders, floor men, and others.

2. Linecasters swear by Matrix Contrast Service because the highly increased visibility of reference marks enables them to "see what they set" *without* eyestrain.

3. With six service branches from coast-to-coast – located in Boston, New York, Chicago, St. Louis, San Francisco and Los Angeles, our service men can give immediate attention to processing of all sorts and new matrices.

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Detroit News
Minneapolis Star & Tribune
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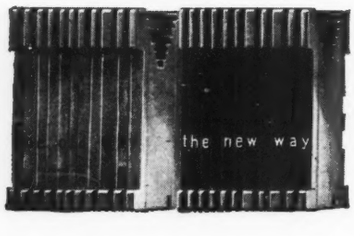
St. Louis Globe-Democrat
St. Louis Post-Dispatch
St. Louis Star-Times
Cincinnati Enquirer
Cleveland Plain Dealer
Houston Post
Beaumont Enterprise
Milwaukee Journal
Los Angeles Examiner
Sacramento Bee
San Diego Daily Journal
San Diego Union & Tribune-Sun
San Francisco Chronicle
Portland Oregon Journal
Vancouver (B.C.) Sun



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Matrix Contrast Service

Bishop Processes

For pre-makeready of electrotype and stereotype plates and for making ready on letterpress cylinder printing presses—Laminated mat, skill, and special equipment in combination employed

By HOMER L. BISHOP*

President, Bishop-Stansell Co., West Carrollton, O.

I.

MANY factors have contributed to refinement and improvement of letterpress printing in recent years. The printer, equipment manufacturer, inkmaker, paper manufacturer and photoengraver are the principal contributors. However, with all the advances attained in the letterpress printing process as a whole too much time still is spent in rotary and cylinder press makeready. Regardless of the cause, the hours charged to makeready are the most costly in letterpress printing.

The Bishop Processes

The Bishop Processes are intended for use in pre-making ready curved and flat electrotype and stereotype plates, and for makeready purposes on letterpress cylinder printing presses. By "pre-makeready" in plates is meant the precision means for raising solid areas and depressing highlight areas in a halftone area in the plate, leaving the middletone and type areas at the travel line of the press, to provide greater or less impression of those areas on the paper upon which the job is to be printed in order to secure maximum tone value. Thus it will be seen that in the letterpress printing process more pressure is required to print solids properly than is required to print the highlight areas.

In the Bishop Process, the electrotype is finished and shaved in flat form to a predetermined height before the major makeready is applied.

Bishop Mats

Before discussing them separately, the writer wants to make clear that there are three types of mats with specialized equipment used in the Bishop Processes. So there will be no confusion in the reader's mind, the mats themselves are classified as follows:

(1) The first mat is for electrotype plate treating or in other words, pre-making ready the plate with reference to its printing levels. Some areas in the plate will be depressed while other areas will be raised. This is the three ply mat, shown in Fig. 2.

(2) The second mat is for hand-cut overlays used in making ready on presses printing from flat or curved plates. It is a two-ply sheet and consists of a base manila sheet 0.006 in. thick to which is laminated a 0.003 in. top sheet on which the proof of the plate is taken, after which the cutting is done. See Fig. 4.

(3) The third mat is the Bishop Stereotype Special Mat. It is a two-ply sheet and consists of a base manila sheet 0.006 in. thick to which is laminated a 0.003 in. top sheet. This mat is prepared similarly to the Bishop overlay mat described above. However, it is used differently. After being hand cut, it is fastened in register to the back of a stereotype mat after which the stereotype plate is cast. The resultant plate carries middletone and halftone areas in higher printing plane than the highlight areas.

Bishop Plate Treating System

In the Bishop Plate Treating System a special laminated mat is employed. The laminated mat and a special plate treating unit are utilized to provide the major makeready on flat electrotype plates. If the electrotype plates are to be mounted on a rotary press they are curved after the treating operation takes place to fit varying press cylinder diameters.

Bishop Plate Treating Process

The first item of the process for electrotype plate pre-makeready is the treating

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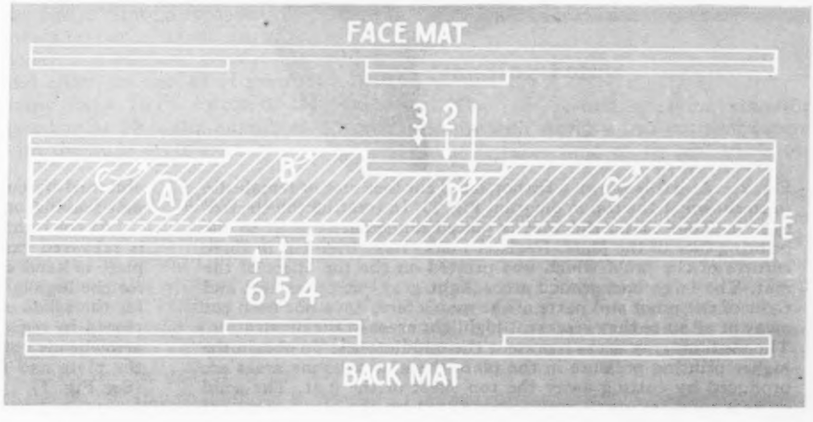
Fig. 1.—This diagram is illustrative of an electrotype plate formed by the Bishop Plate Treating System. The diagram is not drawn to scale but is presented only to explain the principles of the process. The plate *A* has been premadeready by subjecting it to sufficient pressure under exactly controlled conditions in the Bishop Plate Treating Unit shown in Fig. 3. The face mat (top) and the back mat (bottom) act as a pair of dies to form the plate so as to relieve the surface of the plate according to printing value. At *B* is shown the solid area of the plate; at *C* and *C* are shown the middletone areas (or press travel line) of the plate. The highlight area of the plate is shown at *D*.

The face mat is three-layered as shown at *1*, *2* and *3*, each layer 0.003 in. thick. The back mat is identically layered as shown at *4*, *5* and *6*. Each layer also is 0.003 in. thick.

When the plate is to be treated to obtain the several printing levels, the face and back paper dies must be exactly opposite to each other in contour. Thus, when the assembly, indicated in this diagram together with stout upper aluminum and lower steel plates added, is passed between the two 6 in. polished steel rolls of the Bishop Plate Treating Unit, the solid area of the back mat or die *4* exerts pressure upon the electrotype plate to raise the printing face of the plate into the cavity in the face mat or die at *B*. Corresponding action takes place in the middletone area *C* of the plate, while the highlight area *D* remains at its original level.

After the plate has been passed through the Bishop Treating Machine the back mat is removed, and the plate with the face mat attached is placed upside down on the plate shaver or planer bed to produce an all-over constant base area and reduce the plate to proper thickness. The plate may now be mounted or it may be sent to the curving machine.



mat. The Bishop mat is made up of a laminated body. It consists of three sheets of stock. The top is a rag content white sheet of high printing fidelity. The middle sheet is of tan parchment. The base is of pure vegetable parchment to insure strength and lasting quality in the mat. These sheets are laminated by machine with a wax bonding agent to facilitate peeling the layers after cutting. Different colors of stock are used to simplify cutting and to assure proper tone gradation in the treated plate.

Cutting the Mats

In the actual operation of cutting these mats for a set of four-color original plates, two proofs are pulled from each color plate. These mats are then trimmed to size and stab mark openings are cut to assure register. These register marks can be cut to either live metal corners or prearranged spots on the original plate. Then the mats are marked for proper identification and color. Only one set of mats is needed per color, as each set will treat many plates.

The Face Mat

The face mat (Fig. 1) is generally accepted as the key mat of the pair used per plate. As this is the mat affecting the printing surface of the plate, it becomes essential that great care be used in preparing it by consulting the color progressive proofs at all times.

To simplify the cutting operation, it is recommended that the pre-makeready man remove the extreme solids down to the base or parchment sheet, cutting back approximately 1/32 in. from the solid areas. The second operation is to outline the highlight areas, again cutting back from the juncture with other tones about 1/32 in. Last, the top white sheet is pulled away from the mat, leaving three distinct levels on the mat—highlight, middletone (or travel line) and the solid. This, then, is the top or face mat, which is applied when treating the printing surface of the plate.

The Back Mat

The back mat (Fig. 1) is applied in the treating operation to the back side or back of the plate, thus forming a die-like relief to the pressure applied from the face. This protective relief insures against distortion, or the concaving of delicate areas on the face of the plate which might suffer under the pressure needed on larger areas.

In cutting the back mat, the operation is in direct reverse of that used in cutting the face mat. The highlight areas are removed first through to the base sheet, observing the 1/32 in. distance from the tone juncture to permit the areas left in the face area to enter the mat. Then the solid areas are outlined through the top sheet only, and as in the face mat the top white sheet, is pulled away last.

On the back mat the solids are left at white sheet level, while in the face mat, the solids are cut down to the lowest or base parchment sheet level. Here is the relief effect that is furnished by this pair of laminated paper dies. Each distinct level cannot be forced to a height or depth which does not conform to the pair of dies.

The Protection Sheet

The final step in the preparation of the mats is the addition of the protection sheet. Since the wax agent used in laminating the mats is exposed when the top white sheet is peeled away, it is necessary to protect this surface from dirt and metal chips. Any foreign matter adhering to the mat would result in a batter when the plate is treated. This addition is effected by covering each mat with a sheet of blank 0.003 in. stock. Then, as many of these covered mats as can be easily handled are placed between two sheets of cardboard, and a pressure of about 100 T. is applied in a hydraulic

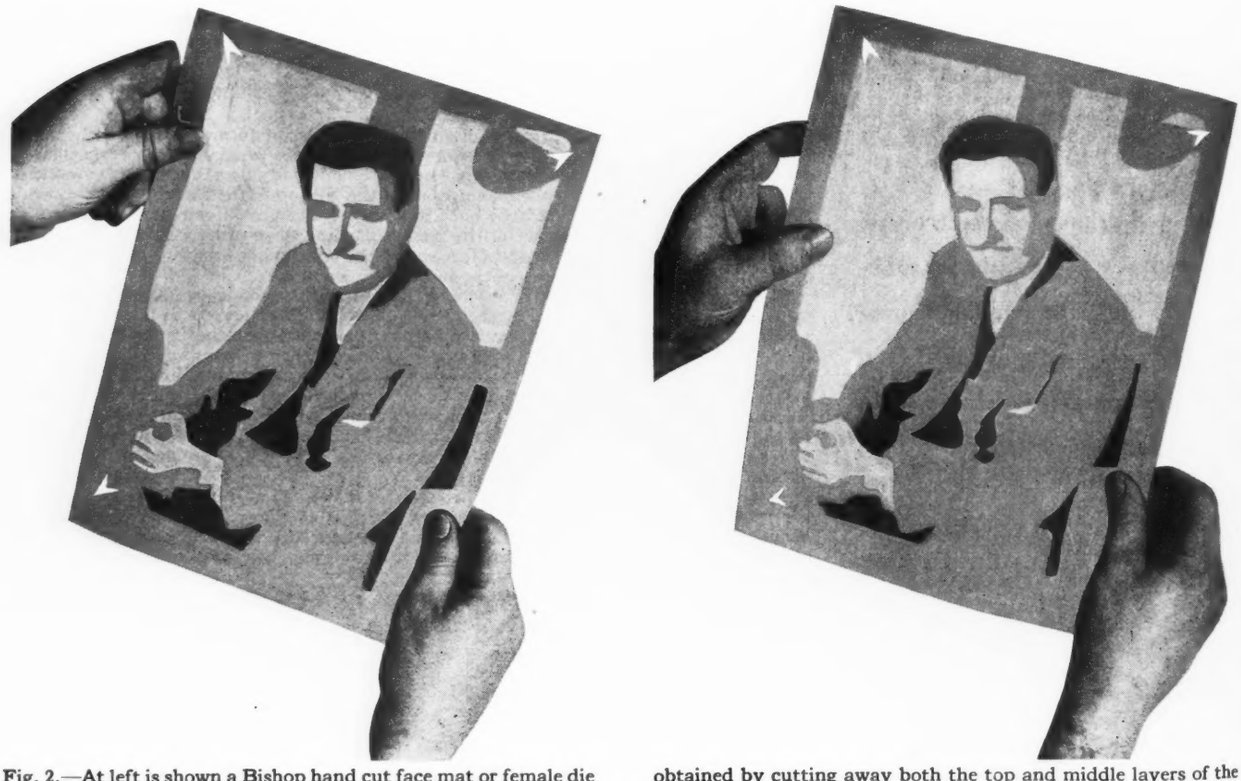


Fig. 2.—At left is shown a Bishop hand cut face mat or female die (also shown at the top in diagram Fig. 1). In treating the electrotype halftone plate, this mat is placed immediately next to the printing face of the plate. Register marks have been cut in three corners of the proof which was printed on the top sheet of the mat. The large background areas (light gray) at upper left and right of the proof and parts of the man's face, have not been cut away at all since they represent highlight areas in the illustration. The medium gray areas represent the middletones. To obtain the higher printing pressure in the plate these middletone areas are produced by cutting away the top sheet of the mat. The solid or near-solid (shadow) areas represented by the black areas are obtained by cutting away both the top and middle layers of the mat leaving only the base sheet highlight areas exposed.

At the right is shown the hand cut back mat (male die) which is prepared exactly opposite to the face mat. The proof of the plate is hand cut so that two layers of the mat are stripped off for the highlights, one layer for the middletones and none at all for the solids or shadow areas. The face and back mats are now placed in register with the plate itself by means of the corner arrowheads cut into the mats. The face mat is placed on top of the plate and the back mat is placed on the back of the plate. (See Fig. 1).

press. This pressure creates a firm bond between the wax on the mat and the 0.003 in. stock, insuring a firm and clean surface which will not adhere to the face of the plate as would the wax. For identification, the 0.003 in. stock should be different in color for the face and back mats.

Securing Tapered Effect

In calculating the thickness of the mats, it is well to remember that each thickness of paper will check 0.003 in. at all times. The sum of 0.009 in. thickness assures a total of 0.003 in. per tone gradation on solid, middletone and highlight areas. The addition of the protection sheet will act as a buffer to give a taper effect to all treatment, instead of the sharp break which might pull down tones desired at a higher level.

With the set of mats finally covered with the protection sheets, we are now ready to proceed to the actual treating of the plates.

Treating the Plates

To arrive at the greatest efficiency in the treating process, it is well to arrange the plates to be treated in four piles, each pile consisting of one plate of each of the four colors. Then work them through by treating one of each color.

Plate Treating Machine

The machine shown in Fig. 3 was developed for the Bishop Process of treating and is designed especially for electrotype plate pre-makeready purposes. The plates to be treated are passed between two 6 in. polished steel rolls which are set at a fixed distance apart. The only stipulation in connection with use of the Bishop unit is that all plates be given their first shave at a certain thickness, and that thickness must be rigidly adhered to with respect to a particular set or sets of plates.

The Master Plates

The two polished rolls of the Bishop Unit (Fig. 3) are set at a fixed distance. The plate to be treated is placed between two master plates. These master plates are both 0.187 in. thick, the bottom plate is ground steel. The top master plate is of aluminum alloy to facilitate easy handling. They lock firmly together by a pair of steel studs at the leading edge which enters the treating unit first.

The Treating Operation

In the actual treating operation, the treating mats are first checked for proper color. The face mat is matched on the face and fastened with strips of adhesive tape to the platebearers. Then register marks are scratched on the back of the plate with a pair of calipers. The plate is turned over and the back mat is matched to the register marks inscribed by the calipers. The plate is now ready for its treatment.

The plate with mats attached is placed, face up, on the steel master plate. Next the aluminum plate is placed over the plate assembly.

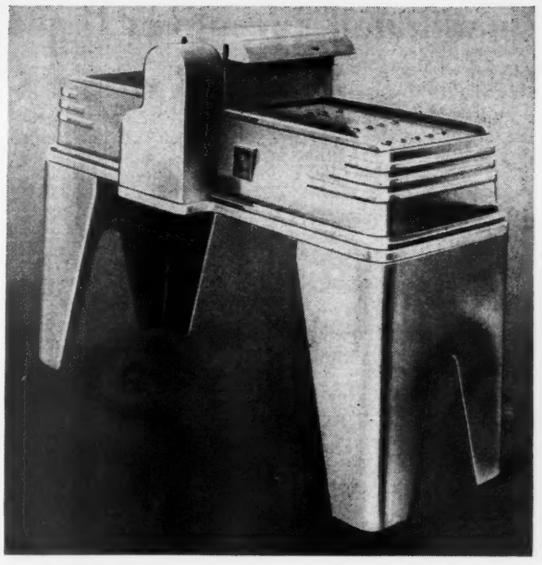


Fig. 3.—View of the Bishop Electrotype Plate Treating Machine. This machine is fitted with two polished steel rolls, 6 in. diam., mounted a fixed distance apart one above the other horizontally midway of the bed. A 1/6 h.p. motor drives the rolls. Overall dimensions of the machine are 5 ft. long by 25 in. wide by 30 in. high from bed to floor. Small idler rollers are mounted at spaced distances along the bed.

The plate and the face and back mat assembly together with a master base ground steel plate and an upper aluminum alloy plate is passed between the rolls in treating the plate.

The lower steel plate and the upper aluminum plate are locked together by a pair of steel studs at the leading edge which enters the treating unit first. After the plate is treated it will have taken the shape such as is shown in the diagram Fig. 1.

It is made certain that it is in proper lockup with two studs on the master steel plate. The whole assembly is then passed through the steel rolls. Once through, the aluminum plate is removed and laid back upon the top of the unit for the next plate. The plate which has just been treated is passed to the shaver.

The fact that it will take a very slight curve when being passed through the treating unit makes it necessary to place the plate face up. The curve taken by the plate will then be in the proper direction for shaving. In this way, the plate will not require straightening.

The Shaving Operation

The face mat is left attached to the plate for the shaving operation as a guard against any treatment being shaved out of the plate. It is also important that the plate pass through the shaver in the same direction as it passed through the treating unit, because of the slight curve taken in treating.

The shaving operation as described above is continued through the entire set of plates, working through one of each color before starting on the next of each color in the set. After the set is completed, the mats are clipped together in an entire set and filed away for use in the future. Since a great many advertisements repeat in future issues or in other books, this will save a great deal of time and effort, as one set of mats will treat many plates. In the carton printing field, as many as 50 plates have been treated with the same set of mats.

Adjusting for Plate Thickness

Changes in thickness of plates can be made on the Bishop Unit by changing to the spacer plates necessary which are furnished with the Treating Unit. Since the Unit is set to take a plate of 0.250 in. maximum thickness, any plate down to 0.152 in. can be treated by the addition of the proper spacer plate. It is possible to obtain any degree of treatment desired by changing the thickness of the mass passing between the treating rolls.

Treating Claybourn Plates

With this process, it is possible to treat plates made by the Claybourn method. The plate to be treated is given the Bishop Treatment cold, and then is curved by the Claybourn hot curver. The face mat, which is removed for the curving operation, is replaced on the face for the shaving operation. In this way, treatment can be obtained in plates heretofore treated only by a face mat on a solidifier.

Two Ply Mat Developed

Since the Bishop Unit does not distort the register of four-color process plates, it can be adapted readily to all types of plates where exact register is the primary consideration. For the two-color, and black and white work, an economical two-ply mat has been developed that is much easier and more quickly applied than the three-ply mats designed for the depth and quality demanded in four-color printing.

(To Be Continued)

Standing Forms

The old custom of tying standing forms with string works out well except that it takes time to tie and untie the string when the form is to be used again on certain types of work. Jack B. Gross, Gross Printing Co., Statesboro, Ga., uses Scotch tape on standing type matter, firmly holding the type together as he applies the Scotch tape. When the form is needed again it is a simple matter to lock up the standing matter in the chase without unwrapping the Scotch tape.

Unaffiliated Executives Urged to Become Affiliated with a Craftsmen's Club

PRODUCTION and mechanical executives, particularly those in the commercial branches of the Graphic Arts, owe it to themselves and to the industry to become affiliated with a local club of Printing House Craftsmen. In turn, through membership in the local club, they will become identified with the parent organization which is known as the International Association of Printing House Craftsmen. The International Association is composed of 80-odd Craftsmen's Clubs and represents a total membership of approx. 11,000 members.

Perhaps if you do not now belong to a local Craftsmen's Club you might want to know how you can affiliate. Sprinkled through many printing centers the local clubs are strategically situated to cater to the interests of the greatest number of printing executives. If you are not familiar with the club in your city or do not reside in a city in which a local club is maintained, you may write to J. Homer Winkler, Third Vice President, Intl. Association of Printing House Craftsmen, 505 King Ave., Columbus 1, O., or you may write to Intl. Executive Secretary Pearl E. Oldt, Room 808-18, East 4th St., Cincinnati 2, O. and full information will be forwarded to you promptly with respect to the club nearest your town.

Under the sponsorship of the International Board of Governors, Third Vice President J. Homer Winkler presently is conducting an intensified effort to encourage all unaffiliated printing executives to become members of local Clubs of Printing House Craftsmen.

In each of the 80-odd local clubs throughout the nation will be found composing room, pressroom, and bindery superintendents and foremen; photoengravers; lithographers; electrotypers; sales representatives for equipment and supply firms and owners of small, medium and large printing plants. These men have mutual interests, and all are industrially related, directly or indirectly. Local clubs meet monthly at which time a competent speaker discusses some technical phase of the Graphic Arts. In addition, these practical men enjoy talking "shop" with others who are doing similar work.

Their slogan, *Share Your Knowledge*, exemplifies the spirit in which these men meet each month for the betterment of themselves and the industry. Solutions to many complex production problems are made available to all. In turn, you may contribute a new idea, an improved method of operation, or perhaps even a different process.

The Graphic Arts Industry is composed of numerous crafts, each of which in many instances, is dependent upon the other for information in achieving quality and production. It is therefore imperative that the source of each of these components be made available for mutual assistance. To illustrate, a shop owner needs to find a method to combat some abnormal kink that has developed in his production. To have this problem solved by Craftsmen may save him several valuable production hours.

LETTERS
TO THE EDITOR

Who Will Carry The Torch?

DEAR Editor: A few thoughts on *Metamorphosis?* which appeared in a recent issue of *Printing Equipment Engineer*. This is directed to the final paragraph of your editorial:

> And a word of warning to the mechanical executive: He should commence to prepare himself now so that he will measure up to the stature which management and workers will expect of him. Management and the mechanical executive both have a task of great magnitude ahead of them.

Many years ago, someone said: "The biggest opportunity that can ever come to you will never be greater than your preparation." You write: "Management and the mechanical executive both have a task of great magnitude ahead of them" in improving management-employee relations.

Therefore, the paramount question is: Will they accept this added task, regardless of the size? The fact that you mention management *and* mechanical executive, explodes the idea that it is a one-sided problem. Both must enter into the game if it is not to become a useless venture.

After having spent 44 years in the printing business, I can think of very few men (and fewer mechanical executives) who would be willing to pay the price for this *preparation.*

Better to illustrate my theory in connection with this observation, please let me relate an actual case in point. A friend of mine who conducts a trade composition plant, decided to make a change in the gifts presented to his employees at Christmas time. Instead of liquor, cigars, candy, and the like which he usually passed out, he gave each of them a year's subscription to a trade magazine.

Imagine his surprise and disgust when the reaction reached him. Typical comment was as follows: "Does the old man think we are going to hammer those keys all day long and then go home and spend the night reading about the printing business?"

Human nature remains pretty constant. You may argue, preach and debate that the best place to find a helping hand is at the end of your own arm, but you will still find plenty of people wanting to know which arm.

Professor Lounsbury, after many years of labor at Yale, arrived at the conclusion that "We must view with profound respect the infinite capacity of the human mind to *resist* the introduction of useful knowledge."

We must expect to find considerable opposition to this new movement which seeks to establish a closer relationship between employer and employee. Too much "Yes, it is a good idea but what is in it for me?" will come to the surface.

One of the simplest physchological facts in business is this: If you want to move feet or lazy bones or lazy bodies to action, you must first inject the necessary stimulant in the mind that governs the lazy members.

Who is going to carry the torch?

Don E. Roseman

Answering Reader Roseman's first query, *Printing Equipment Engineer* sees evidence on every hand, irrespective of the size of the company, that management and the mechanical executive will accept the added task. You are right—unless both enter into the game, all effort will be futile. Primarily, the task of animating an inanimate thing (humanizing a company) is strictly management's responsibility. If the supervising executives are given proper encouragement from management they will accept the additional responsibility. In fact, most

Foremanship Training

A TWO week intensified foremanship training course will be initiated by the Department of Publishing and Printing of the Rochester Institute of Technology. The course is designed to present a comprehensive understanding of the duties, responsibilities and techniques of foremanship. Nationally recognized figures in the various areas included in the program will lead the conferences and discussions. Technical problems such as composing room layout, determination of job costs, production standards, and planning and schedule control also will be among the various phases covered. The industry-wide program enables any plant to sponsor foremen or individuals earmarked for supervisory positions.

mechanical executives in companies not given to paying attention to the human element have been frustrated in efforts to properly organize their human relationships. Being able to speak for his company upon certain matters will delight any mechanical executive. This is the prerogative which he has been denied. The mechanical executive considers this a part of his duties.

The larger companies will rely upon people trained especially for the purpose to handle their personnel relationships. Managements of the smaller companies who can't afford to establish such a department, it seems to us, will make every effort to handle personnel affairs themselves with the assistance of their departmental supervisors. After all, the handling of personnel relationships is merely a matter of exercising common sense. We want to get in a remark here before someone else makes another. In the case of the larger companies, the personnel departments are not going to infringe upon the prerogatives of the departmental supervisors, but rather will work through them. We like the comment of William Forrester, Pittsburgh *Press* Personnel Director, who stated at the recent Great Lakes Conference that the personnel director should not usurp the duties of the foremen in any way.

Development of personnel consciousness in the minds of management and mechanical executive transcends the infrequent bestowal of liquor, candy, or trivial gifts upon employees.

Management will accept the added task for the simple reason that its handling of the human element in the past has now reached the stage where management realizes fully that something is wrong. Too many business leaders have spoken upon the subject recently for anyone to claim that management isn't conscious of its faulty thinking in the past. But this personnel consciousness surely is developing. Because of the present saturation of opposite thinking in the minds of many employees, a number of years may be required to eradicate its evil effects. Thus, both management and the mechanical executive have a task of great magnitude ahead of them. Management, primarily, will carry the torch.

Runs Without Suckers

In running a full form on the Kluge press, that is, a form on which there is insufficient white margin for the delivery suckers to pick up the printed sheet and take it to the delivery table, results in a smeared sheet where the rubber suckers touch the printed part. To avoid this, T. G. Cornelison owner of the Cornelison Printing Co., Augusta, Ga., removes the rubber suckers from the delivery sucker feet and make the run with the bare steel suckers operating. These bare steel suckers will work on any light stock but they will not work on heavier stock such as 6 ply board, cover and leather finish stock. No smearing of any kind results from lighter stock.

There is one drawback to this and that is that lint from the stock might get into the air tubes because of the fact that the opening in the steel suckers is considerable larger than the hole in the rubber suckers. To prevent possible damage to the suction system of the press, Mr. Cornelison always takes off the rubber tubes after such a run and blows them out to make certain that no particles of lint or dust get into the suction system.

Moves Midwestern Office

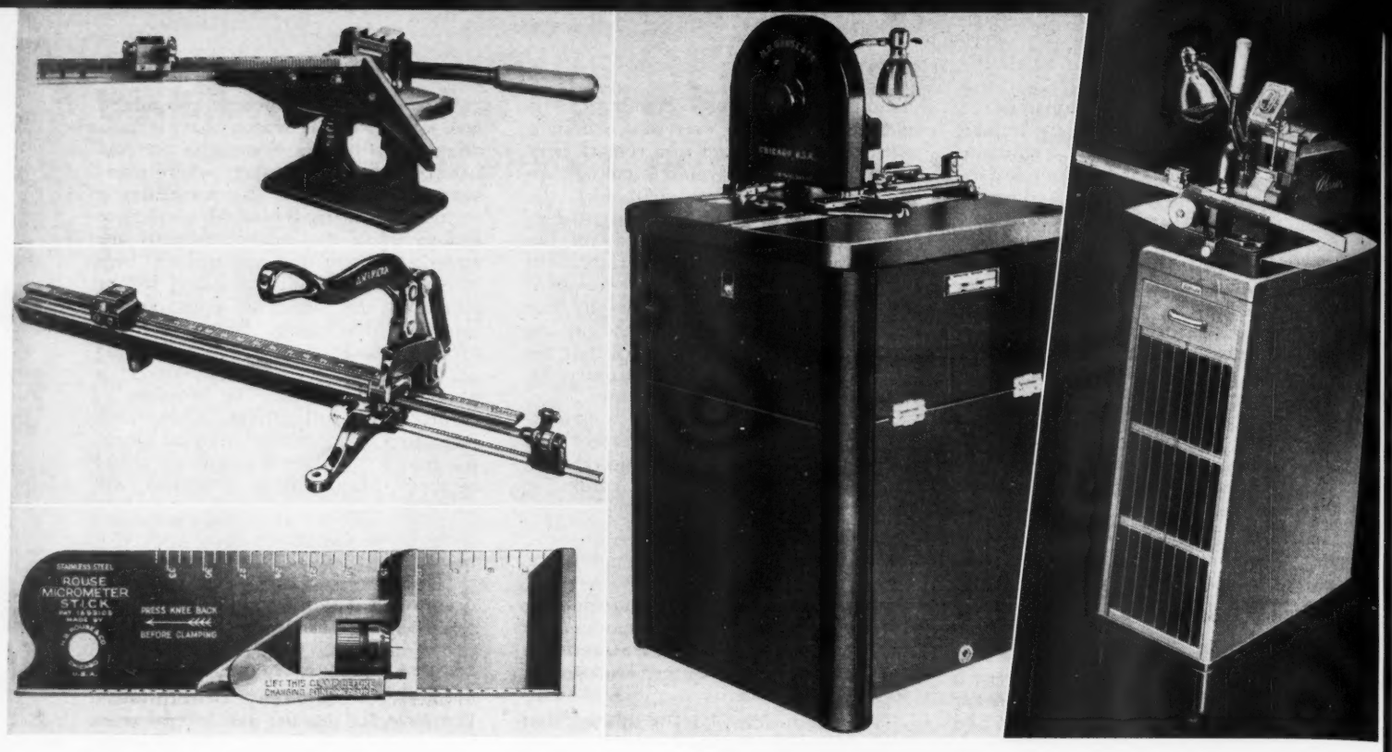
Intertype Corporation's Midwestern District office, for the past several years located at 130 N. Franklin St., Chicago, has been moved to the Rand McNally Bldg., 536 S. Clark St., Chicago. Personnel of the Chicago office includes John S. Plummer, Manager; Walter F. Severin, Assistant Manager; Charles J. Stupka, Sales Manager; and Charles E. Franklin, Service Manager.

Annual Meeting for Officers of International Association of Printing House Craftsmen —

The annual mid-winter meeting of the Board of Governors, of the International Association of Printing House Craftsmen, Inc., was held on February 19 and 20 at the Hotel Gibson in Cincinnati. The Cincinnati Club of Printing House Craftsmen played host to the official family at a dinner on Saturday evening. President of the host club, Robert Thiele, acted as chairman for the dinner. Ollie James, feature writer with the Cincinnati *Enquirer*, was the principal speaker.

Pictured in left to right order are officials of the International. Seated: Gordon J. Holmquist, Chairman of Public Relations, Los Angeles; H. Guy Bradley, Past President, Indianapolis; John L. Reay, Representative-at-Large, Columbus, O.; J. Homer Winkler, Third Vice President, Columbus, O.; Pearl E. Oldt, Executive Secretary, Cincinnati; Harold G. Gale, Ninth District Representative, Fort Worth, Tex.; Gradie Oakes, President, Chicago; Russell J. Hogan, First Vice President, New York; Edward T. Samuel, Treasurer, Cleveland.

Standing: John R. Donohue, First District Representative, Boston; Russell L. Olander, Editor of ***Share Your Knowledge Review***, Robert Pollack, Fourth District Representative, Philadelphia; Fred C. Baillie, Second Vice President, Ottawa, Can.; Fielding Utz, Sixth District Representative, Milwaukee; A. Gordon Ruiter, Past President, Boston; George Glaezer, Chairman of Constitution and By-Laws Committee, Detroit; Al Friedrich, Fifth District Deputy, Indianapolis; Harry Christopher, Fourth District Deputy, Baltimore; Thomas P. Mahoney, Chairman of Education and Research Committee, Cleveland; G. Elmer Leach, Eighth District Representative, Des Moines; Alfred T. Peters, Second District Representative, Utica, N. Y.



Here are shown a number of the composing room tools manufactured by H. B. Rouse & Co. The firm is celebrating its fiftieth anniversary this year.

H. B. Rouse & Co.'s First 50 Years

By PAUL D. BEZAZIAN

HOW can a company be operated successfully for 50 years, through depressions, booms, wars and peace? Walter Sittig, Secretary of H. B. Rouse & Co. is one who has had that experience. Mr. Sittig was one of its three founders in 1899 so the company's 50th anniversary is a personal as well as a business milestone to him.

"Basically, our story is the one of the better-built mousetrap," explained Mr. Sittig. "For example, few present-day printers remember the cumbersome three-piece composing sticks or the inefficient lead and rule cutters of the 1890's. Mr. Rouse radically redesigned these items. His new composing stick was a two-piece tool, graduated to nonpareil and pica measures. The new lead and rule cutter had a positive locking gauge; it could be set to accurate measure. As a result of these improvements, a printer's accuracy and efficiency were increased considerably.

At left is Walter Sittig, Secretary of H. B. Rouse & Co. At right is President Harry Knoll. Mr. Sittig is one of the founders of the company 50 years ago. Company manufactures important composing room tools.

"Acceptance of these products was immediate. With a stack of orders in his hand, Mr. Rouse had little trouble in arranging adequate financing for the new enterprise. Before our first anniversary, the new Rouse composing stick and lead and rule cutter were used in every large printing plant and in a number of the smaller ones."

"Our next new product," continued Mr. Sittig, "was accepted just as widely because of its radical improvement over the miterers of that day. The Rouse hand miterers with positive locking gauge made the first accurate, sharp miters in printing history."

When the use of miters grew to much larger proportions after the first world war, Rouse engineers designed a power miterer which produced miters from strip material in a fraction of the time required by other methods. The savings in printing plant time costs were tremendous. Many customers wrote in to say that the Rouse power miterer soon paid for itself. Additional models were introduced; today there is a model to fit the needs of any printing plant, large or small.

Newspaper composing room foremen soon discovered an additional important use for the new power miterer in making unlimited varieties of special borders and ornaments to improve the appearance of their newspapers. Advertisers liked the new decorative effects in their ads. Some artistically inclined printers even created beautiful designs of gardens, houses, and objects of art from rule and spacing material.

As the years sped by, the company steadily expanded existing lines and added new ones. A new band saw for cutting of slugs in quantity was introduced. For the first time, slugs could be quickly cut to measure before the floormen got them. This was especially appreciated at closing up time in publication work when proofs were holding pages and the deadlines were near.

Rouse engineers also worked directly with customers in designing new items. For example, over a period of time, eight new line gauges were developed to meet specific needs. The new type mortiser, too, was Rouse's answer for a modern safe way to mortise type without altering the normal appearance of characters.

Safety is one of the reasons for Rouse machine popularity. Maintenance is easy—only a minimum is required. For example, one firm used five blades in 18 months on a band saw. Mechanical men also appreciate the simplicity of design. Each machine is meant for single purpose duty and it always stands ready to perform that duty.

Printing school instructors say these products give the student a chance to develop his creative ability and give him an appreciation of accuracy and neatness. There is hardly a school today that doesn't use Rouse equipment. Many feature Rouse products in their text books.

A tour of the Rouse factory disclose that the company's employee relation[s]

ship is excellent. One-third of the employees have been with the company over 30 years, two-thirds for over 20 years. Secure in their jobs and thoroughly familiar with manufacturing and testing operations, these men do exceptionally precise work.

Management also has a long record of continuity. Bill Knoll, one of the three founders, played an important part in setting sales and distribution policies. Several years ago his son Harry succeeded him as president. After many years of experience in all branches of the Rouse business, Harry Knoll was well qualified to direct the company's destiny.

"Our dealer organization is as deep-rooted and loyal as our employees," stated President Harry Knoll. "Rouse products are still handled by most of the dealers who took on our line in 1899. As our business grew, we kept adding dealers. Yet, 15% of our dealers have handled our products for over 30 years, 81% over 10 years. These dealers have done such a good job. Practically every printing plant in the world employs not one but several Rouse products. Furthermore, every printer has a Rouse dealer near him, ready to give him good service.

"During the past few years, our most effective builder of dealer and customer good-will has been our conservative pricing policy. Equipment was in such demand that very high prices could have been asked. Yet H. B. Rouse & Co., advanced prices only the bare minimum to cover our own increased costs. Customer gratitude has kept our business good and our backlog high."

"We feel the future is bright," continued Mr. Knoll, "because continuing high costs will encourage more and more plants to mechanize every possible operation. In fact, the most modern plants are installing duplicate equipment to eliminate walking and waiting time. Every few printers are provided with a set of power tools; each printer is furnished with his own set of hand tools. Every hand tool not completely up-to-date and in perfect condition is replaced. Such plants have ordered many additional Rouse power miterers, slug clippers, lead and rule cutters, composing sticks and other tools. This extra equipment has lowered operating costs by making it possible for a printer to do his job with less effort and greater efficiency.

Finally, Mr. Knoll said: "We expect our second 50 years to be one of continuing development. Our research department will design more new and improved products for the world's composing rooms. All equipment will continue to be made right, priced reasonably, distributed by dealers who know our products well, and used by printers for greater efficiency and savings. That's how H. B. Rouse & Company intends to celebrate a full century of successful operation in 1999."

Padding Multiple Forms

PRINT shops that do multiple forms, especially those that have carbon sheets between the forms which must be torn off in groups, often have trouble in padding them so that a group of forms can be torn off and remain stuck together. In many instances the several forms separate, especially when they are inserted in a typewriter for filling in.

The Askew Printing Co., Muskogee, Okla., does considerable of this kind of printing. Roy D. Askew had difficulty with the padding compound. He did some experimenting. He found a proceedure which allows a group of the forms to be torn off yet without loosening any of the forms making up the group. He has used this proceedure with four-form groups, between each sheet carbon paper is inserted.

After the forms are collected in proper order with a sheet of carbon paper put between forms, they are straightened up ready for padding. Then they are stacked and a weight is put on top just as for regular padding. But before any padding is done, the part that is padded is thoroughly sandpapered with a medium lapping paper being sandpapered off.

Then a clean rag is dipped in water. Without completely wringing it out the freshly sandpapered surface is gone over with the rag to moisten the surface. Then a cold padding compound is used in the regular way. It is applied without thinning down. Only one coat of padding compound is applied. Immediately after, Mr. Askew takes a clean cloth and covers one finger. With this cloth-covered finger he gently rubs both side edges of the freshly padded surface. This prevents any extra accumulation of padding compound that sometimes is found along either edge.

Multiple forms padded in this way tear off in groups perfectly with the carbon paper securely bound between the forms so that it will not drop out. Neither will the several forms separate when they are put in a typewriter for filling in.

Plant Appraisal

Warning of False Security

By ROBERT ROYDEN GREER*

*Printing Engineer, Los Angeles, Calif.

IT has been discovered that many printing appraisals give a false security, and many are not even good inventories of plants. If many small pieces of equipment are left out, or are incorrectly identified, the appraisal becomes hazardous.

If your plant is underappraised you will suffer as a co-insurer in case of fire loss or damage. Also your allowable yearly tax depreciation on equipment suffers tax-wise.

If you are overappraised you pay unnecessary premiums on insurance, without added protection. You may get a little more allowable depreciation, tax-wise; but it can be contested by the Federal tax authorities years later, and then this inflated valuation and depreciation will draw all back payments and penalties.

Even if this did not happen at the time, you would be compelled to pay that added property tax on this inflated value, year after year.

As an example (one of many): A year ago it was noted that a 40-year-old high-base Model 5 Linotype (without universal ejector, and having only the two molds) was appraised *as is* on the floor for a 15-year depreciation on this machine, meaning that all that was gained was $130 extra depreciation for this excess valuation—with the tax authorities able to collect it even years later.

Now, the property tax increase against this machine eats up a goodly portion of this momentary gain. That is not all—as the owner will pay added premium for this excess valuation and gain no added fire loss security. In case of damage, an expert appraiser and adjuster is called upon the scene. He quickly discovers the true facts—and his findings are final. Your insurance benefits can be blocked and may go to litigation.

Furthermore, if the plant shows much overvaluation, and there should be a fire loss—then there is every possibility that the arson squad may use the "fine comb" to see why the fire just happened.

With these arrows pointed at the owner, he still faces the session with the tax commissioner to review the appraisal at any time, even years later, and then pay the bill with penalties. If this does happen, the owner cannot then recover his excess payments to either the insurance company, or to the property tax department for over-paid property tax.

Meticulous care in even the smallest detail is vital, along with constant study and checks of changing values must be exercised by an alerted and qualified appraiser (based upon a thoroughly detailed and complete inventory made at the time) to make an appraisal worth more than the paper it is typed upon.

Two Sheets—

Two separate colors, printed simultaneously on Miehle Vertical Press

THE idea of ganging jobs and saving press time is an old one in the trade. But there are times when the jobs cannot be ganged because, for instance, the different jobs, identical in size, are on different colored stock. R. E. Mabry, pressman with the Williams Printing Co., Spartanburg, S. C., feeds two jobs, on separate sheets at the same time. The press on which Mr. Mabry does this is a Miehle Vertical press. He has run two 8½ in. by 11 in. jobs at the same time.

The device that enables him to do this is a sort of H shaped fixture (Fig. 1) made from wood reglet. There are, however, two

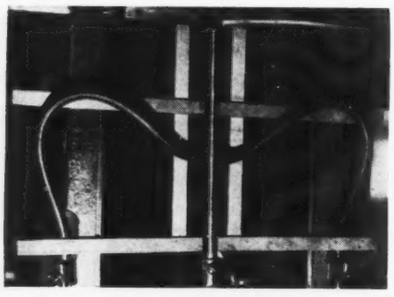


Fig. 1.—H-shaped device constructed from wood reglet in position on Miehle Vertical feed table.

"cross pieces" instead of the usual one found in an H. The H shaped gadget is turned on its side and what correspond to the two upright parts of the H are snapped behind the two upright pieces on the feed table. This puts the double cross bar of the H in the center of the feed table. The purpose of these two cross bars is to furnish a support to press against each of the two inside ends of the stock being run.

The two separate paper piles are then loaded on the feed table in the usual way, the cross bars of the H holding them in place at the center. The suction arm

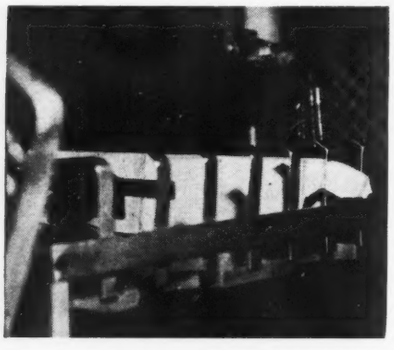


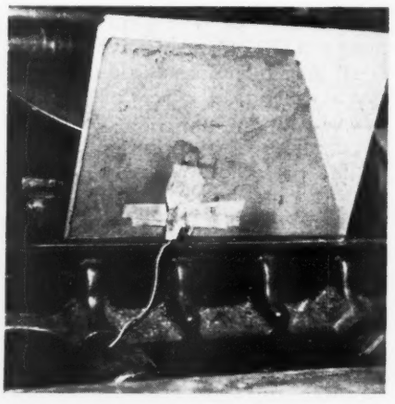
Fig. 2.—Section of Miehle Vertical delivery table with inverted V-shaped manila divider in position to keep separate the two different colors of stock which are fed through press at one time in plant of Williams Printing Co., Spartanburg, S. C.

operates as usual, picking up the two pieces instead of the usual single sheet. The printing operation is the same, the only trick being in keeping the two sheets in proper position so that the suction arm will pick them up and carry them forward.

The only other part of this reglet device is a piece of tympan paper cut about 6 in. wide and sufficiently long to run from the front to the rear of the delivery table. This sheet of tympan paper is folded lengthwise and put (inverted V wise and in vertical position) in the middle of the delivery table, the "ears" being hooked over the guides. The purpose of this is to separate the two sheets as they come through to the delivery table and aid each in settling in its proper section of the delivery table.

To Run 12x19 Stock on 10x15 Jobber

MANY printers run much larger size stock on a small press by feeding it first one end and then the other end. This is a rather slow process because the end of the stock that extends beyond the edge of the platen is



liable to bend down and so pull the sheet away from the bottom gauge pins.

Julian T. Quintero, owner of the Julian Press, Birmingham, Ala., has eliminated this drawback so he frequently runs sheets as large as 12x19 on a 10x15 jobber. He simply takes a piece of 8 ply painter's board such as is used for show card work and makes an extension to the platen. He rests one edge of the board against the metal bole that holds the tympan paper in place. He fastens the board in place by means of gummed paper, part of which is attached to the ply board and part on the tympan paper.

Then to brace it for rigidity he fastens a piece of stout wire to the back of this piece of ply board with gummed tape and hooks the other end of the wire around one of the platen adjusting screws. This holds the piece of ply board rigid.

Large stock can then be fed to the jobber at regular speeds. Generally, in using such large stock to print on, there isn't room enough for the regular gauge pins so a couple of quads are pasted on the tympan paper to act as guides to which the stock is fed.

Makeready

with Double Tympan Paper

UNLIKE the usual method of making ready on the platen press, H. B. Burke, pressman with the Conroe Courier Pub. Co., Conroe, Tex., uses a double tympan sheet. He first strikes an impression of the form to be printed on the top tympan sheet. Then by using a sheet of the actual stock on which the form is to be run he locates the gauge pin, making certain that the tongues go through only the top tympan sheet.

After they are in place he taps each pin once or twice so as to make an im-

pression on the second tympan sheet. He then loosens the tympan paper at the upper bale and lifts up the first sheet. This is rolled back out of the way. Several V shaped tongues are cut into the second tympan sheet. Generally, he cuts two at the bottom to correspond to the two gauge pins and one at the left-hand side to correspond to the gauge pin. In addition, a tongue is cut on the right-hand side and one at the top. These V shaped tongues are cut so that the stock itself will slip in under the several tongues the same as stock fed to the gauge pins.

This done, the tympan top sheet is rolled back in place and fastened with the bale. Then an impression is made on a sheet of the stock to be run. Any makeready that is necessary is done on this sheet of stock. When the makeready has been completed, the top bale is loosened and the first tympan sheet is rolled back. The sheet of stock on which the makeready has been made is then inserted under the tongues and the tongues pressed down. A piece of tag or press board is then placed over this and the top tympan sheet is rolled back into place and fastened with the bale. The job is then ready to run.

Shop Talk *indulged in freely at SNPA Western Division Mechanical Conference during two-day meeting*

By STAFF WRITER

THE annual meeting of the SNPA (Western Division) Newspaper Mechanical Conference was held at Hotel Mayo, Tulsa, Okla., on Monday and Tuesday, February 21 and 22. Approximately 240 mechanical and production executives and manufacturer and supplier representatives were registered.

Chairman of the various sessions during the two-day conference meeting was W. J. Dowell, Chief Machinist, Tulsa (Okla.) *World-Tribune*. C. W. Tabb, Manager, Western Division of the Southern Newspaper Publishers Association, served as Secretary of the conference.

Officers Elected

New members elected to the Executive Committee are as follows: O. M. Harper, Production Mgr., Newspaper Printing Corp., Tulsa, Okla.; Houston Awalt, Mechanical Supt., San Antonio (Tex.) *Express*, and Ralph R. Moffett, Mechanical Supt., Dallas (Tex.) *Times-Herald*.

Chairman for the 1950 conference is George N. Guthrie, Pressroom Supt., Little Rock (Ark.) *Gazette*; Vice Chairman is George Woodman, Mechanical Supt., Fort Worth (Tex.) *Star-Telegram*; Secretary is C. W. Tabb, Manager, Western Division, SNPA.

Exhibits

The equipment and supplies exhibits were not great in number but were very interesting and informative to the newspaper production and mechanical executives of the conference. The Universal Mono-Tabular Corp. exhibited for the first time, the Universal Strip Caster for making rules, leads and slugs. Henry Honig and Harry Horn were in charge of the exhibit. The Morrison Co.'s exhibit in charge of George L. Morrison himself, showed two models of Morrison composing room saw trimmers and a slug stripper. The Kellogg Switchboard and Supply Co.'s exhibit in charge of George Leyser, drew considerable attention from the executives during the demonstrations of the Type-O-Writer keyboard which carries the same arrangement as a standard typewriter and is mounted above the keyboards of Linotypes and Intertypes. Printing Equipment Division of Western Newspaper Union exhibited a number of machines, chief among which was a perforator manufactured by Challenge Machinery Co. Imperial Type Metal Co.'s exhibit was in charge of Robert Knappage, recently assigned by that company to the Texas territory. The exhibit consisted of newspaper color stereotype plates as well as a display showing the ores and the raw metal extracted from them (lead, tin and antimony), as used in type metals. The exhibit of Linotype Parts Co. was in charge of Van McKee, Vice President. The company had on exhibit its new quadding and centering device for application to outstanding line-composing machines. Many supply parts were also exhibited. The exhibit of Hammond Machinery Builders was in charge of Adrian L. Vanderlinde, assisted by his son, A. L. Vanderlinde. Shown were stereotype platecasting machines in two sizes, and a new stereotype plate shaving machine for the smaller plants.

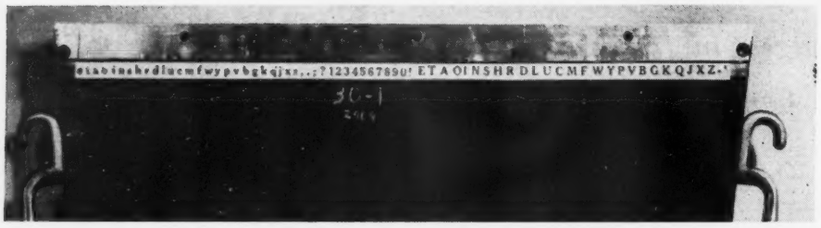
Harris-Seybold Meeting—Among those in attendance at Harris-Seybold's Western District Sales and Service meeting held recently in Chicago were (left to right) N. O. Scourfield, Seybold Division Manager; J. C. Dabney, Eastern District Manager; G. S. Dively, President and General Manager; Ren R. Perry, Western District Manager, and C. C. Sorensen, Director of Personnel. Perry presided at the two-day meeting, which was attended by more than 65 of the Harris-Seybold personnel.

Stereotype Session

CHAIRMAN W. J. Dowell introduced J. R. Loughridge, Stereotype Supt., Houston (Tex.) *Post*, who presided over the stereotype sections of the conference. The first topic to draw the attention of the conference was related to the actual use of the new Wood stereotype plate color registering machine in newspaper printing plants. It seems that one of these machines was installed recently in the plant of the Oklahoma City (Okla.) *Oklahoman and Times*. Both Elmer Hodgkinson and G. C. Roper, Pressroom Supt., agreed there is a definite time saving in the pressroom with respect to plating-up and making ready the press. It was brought out that if a plate is out-of-register, it can be corrected in the stereotype room before the plate goes to the pressroom. It was the consensus of opinion of both of these men that there is no saving in the stereotype room in the making of color plates but that the saving is in the pressroom. Both men expressed themselves by saying that the machine had not been in use a sufficient length of time to give definite figures, but that in some instances, there is a saving of from 2 to 3 hours time in getting a press ready to run when plated-up with stereotype color plates.

I. Tornberg, Vice President, Wood Newspaper Machinery Corp. was called upon by Chairman Loughridge to discuss the machine. Mr. Tornberg said he could not give definite figures at the present time because the machine is relatively new and there are so few installations at the moment. He did say however, that in the case of an expensive newspaper press standing idle because of inaccuracies in stereotype color plates during makeready period, that those inaccuracies have now been removed from the pressroom through the use of the machine. The stereotype department now has control of inaccuracies in the plate.

Chairman Loughridge then discussed, at the request of someone in the audience, his method for pre-registering stereotype color plates through the use of a four-needle device. For cutting the



SPLIT MAGAZINE CHANNEL SCALE—It often happens that after using an Intertype or Linotype split magazine the operator will have some loose matrices lying on the keyboard tray. If he doesn't distribute them before changing the split magazine to another, he is inclined to let them accumulate. In a short time, he may have a few matrices from several magazines lying around.

To encourage the operator to keep these matrices in their proper magazines, Carl Snow, Composing Room Supt., Springfield (O.) *News* and *Sun*, adopted a printed paper scale-strip which is cemented to the upper channel plate of each magazine. The strip bears characters for each channel so the operator can slide the sorts by hand into the proper channel without difficulty. The letters are spaced on the paper strip so that each matrix character comes directly above its magazine channel.

register edge of the mat he uses a steel straight edge and trims the mat with a knife, although some stereotypers use a pencil to mark the mat "provided the pencil is kept sharp." Mr. Loughridge explained that in preparing a set of color mats, he is very careful to extract the required number of mats from the center of a package of 50 mats so that they will all have the same moisture content and will likewise shrink as evenly as possible. In the case of some comic mats, he finds the mats come into his plant with different moisture content. He can control the register to some extent by remoistening the mats or in some cases, it may be necessary to take all of the moisture out of the mats according to the indications of the four-needle instrument which he uses for registering purposes.

Stereo Mat Manufacture

Victor E. Fishburn, Vice President, Burgess Cellulose Co., Freeport, Ill., discussed "Mats—Their Manufacture and Manipulation." (See abstract of Mr. Fishburn's address this issue).

Stereotype Supt. Smith of the Tulsa *World* and *Tribune*, discussed operation of the Lake Erie direct pressure press in the stereotype department. He stated that at the present time two different molding combinations are being used. One combination consists of a Combino blanket and cork and in the other combination, a Bakelite board is substituted for the cork. He stated that when direct pressure molding is used, the form must be locked-up properly to avoid crushing or bending type.

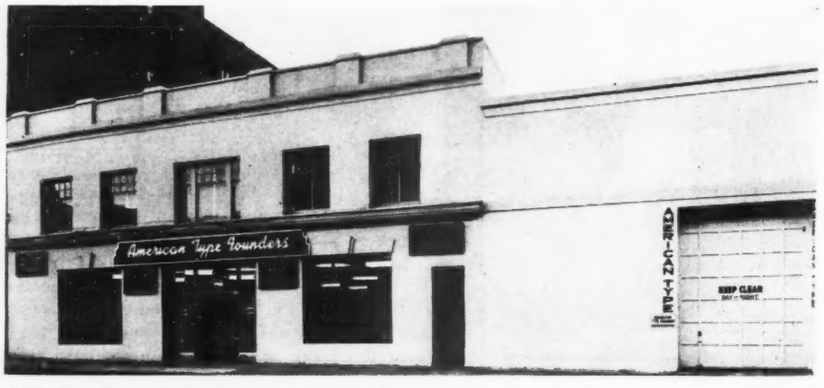
In response to a query, Joseph Goggin of Newspaper Publishers Supply Co., stated that if the level of pressure of a stereotype chase is reached through the use of a 0.918 in. chase, no type hazard exists so far as chase and type are concerned and that with this height chase, it is a definite protection to the type matter in the form.

In discussing the casting factors in stereotyping, Joseph Goggin stated that usually the inspection for the printing levels on the stereotype molds are made before the mat is removed from the page type form. A colored ink or soiled hand pad providing two-tone effect is considered helpful for this operation so that the stereotyper can judge better the spaces on the back of the mold for proper casting support.

Chairman Loughridge remarked that he removes the mold from the form and holds it up at the proper angle to the light so as to judge whether the printing levels are in proper order.

With respect to the drying and forming of mats, Chairman Loughridge described in some detail that formerly he used a 23% moisture content mat but now he uses a 19% moisture mat. He accomplished this change in moisture content by utilizing an old Sta-Hi machine for pre-shrinking on which he cut down the vacuum to almost nothing—just enough to hold the mat up properly. The drying time is 35 sec. In this way the mat accumulates heat and while it is being dried it is also being shrunk at the same time.

Upon request from the chairman, Clarence Seaman, Vice President, Imperial Type Metal Co., stated that the usually accepted formula for standard stereotype metal consists of 5¼% to 5¾% tin and from 13½% to 13¾% antimony, balance lead.



ATF San Francisco Branch—ATF Sales Corp.'s San Francisco branch, after being in a temporary location during the war, is now in this new building at 360 Golden Gate Ave. With 11,500 sq. ft. of floor space for offices, warehouse, service department, and a merchandise display and order department, the new building also features an 8000 lb. capacity elevator for loading or unloading trucks at any height. Willis C. Johnston is Manager of the branch.

Composing Room Session

HOUSTON AWALT, Mechanical Supt., San Antonio (Tex.) *Express*, conducted the Composing Room Session. Ralph R. Moffett, Mechanical Supt., Dallas (Tex.) *Times-Herald*, stated that the matter of handling standing ads is a headache. In his plant standing heads are painted red in the non-printing area so that the makeup man will not dump them into the metal cart.

George Woodman, Mechanical Supt., Fort Worth (Tex.) *Star-Telegram*, stated that in his plant, four men are employed on the break-up, two during the day shift and two during the night shift. At the present time he is trying out an index system to keep tab on standing ads and will report at the next SNPA (Western Division) meeting as to how successful the system is. He stated that at the present time his composing room gets into difficulty if one man gets sick or for any other reason cannot work on any certain day. The system being used at the moment depends a whole lot upon the men's memory.

Another executive stated that the advertising department sends a marked paper to the composing room. He admits the system could be improved upon.

In another plant a proofreader goes through the tickets on the original ad copy and if she sees a ticket with one or more skip dates on it, she calls the matter to the attention of the foreman when filing proofs.

(Continued on Page 54)

Earl C. Lenz, General Sales Manager, Paisley Products, Inc., has announced the appointment of Herman Liberman as Field Engineer. He has been with the Paisley Chicago plant as Chicago sales representative for many years. Liberman will make his headquarters in Chicago at the company's plant and will supervise field tests and servicing procedure of the Paisley sales staff throughout the country on their contacts with printing, bindery and paper box manufacturing industries.

Some Newspaper Mechanical Executives and Manufacturer and Supplier Representatives Attending Western Division SNPA Mechanical Conference in Tulsa, Okla.

1.—Harry Horn and Henry Honig, Universal Mono-Tabular Corp., Dallas, Tex.; R. J. Crawford, Stereotype Supt., Shreveport (La.) *Times*; C. C. Hendrix, Sales Representative, Western Newspaper Union, Shreveport, La.

2.—C. T. Amerin, Composing Room Supt., Norman (Okla.) *Transcript*; W. E. Raine, Mechanical Supt., Holdenville (Okla.) *Daily News*; A. L. Vanderlinde, Manager, Technical Dept., Hammond Machinery Builders.

3.—Vern Williams, Mechanical Supt., Newspaper Printing Co., Topeka, Kas.; Leland Schenck, Vice President, Capper Publications, Inc., Topeka, Kas.

4.—L. F. (Shorty) Byus, Representative, Mergenthaler Linotype Co.; Jack Faris, Representative, Matrix Contrast Corp.; Ralph R. Moffett, Mechanical Supt., Dallas (Tex.) *Times-Herald*; Victor Fishburn, Vice President, Burgess Cellulose Co.

5.—Roy Wickizer, Composing Foreman, Tulsa (Okla.) *Tribune*; W. J. Dowell, Chief Machinist, Tulsa (Okla.) *World-Tribune*; Robert Knappage, Representative, Imperial Type Metal Co.

6.—George Morrison, The Morrison Co., Milwaukee, Wis.; Ray Armstrong, Stereotype Supt., Amarillo (Tex.) *Globe-News*; R. K. Bobbitt, Composing Machinist, Oklahoma City (Okla.) *Oklahoman-Times*.

7.—Joseph Goggin, President, Newspaper Publishers Supply Co., Chicago; Richard J. Schrik, Asst. to Manager Walter Cooper, Western Div., R. Hoe & Co., Chicago.

8.—R. D. Fisher, Machinist, Seminole (Okla.) *Producer*; George Leyser, Representative, Kellogg Switchboard & Supply Co.; Roy R. Marshall, Machinist, Ft. Worth (Tex.) *Press*; M. C. Dionne, Owner, Sylvia (Kas.) *Sun*; Mr. Dionne flew his own airplane to and from the conference.

9.—William Mauldin, Chief Machinist, Oklahoma City (Okla.) *Oklahoman* and *Times*; Frank Barnett, Sales Representative and Van McKee, Vice President, Linotype Parts Co.

In a huddle at the Composing Room Clinic of the Northwestern Mechanical Conference, Feb. 14, were: (seated, left to right) Howard N. King, Typographic Consultant, Intertype Corporation; John Moffett, Advertising Director, Minneapolis *Star* and *Tribune*, and W. H. Griffin, Sales Director, Mergenthaler Linotype Co., and former President, Intl. Association of Printing House Craftsmen. Standing, William Davies, *Star* and *Tribune* Day Composing Room Foreman; Tom Brain, Ad Foreman, Duluth *Herald* and *News Tribune*; Enoch Koynen, Albert Lea (Minn.) *Tribune* and Bob Lee, Composing Room Foreman, St. Paul *Dispatch* and *Pioneer Press*.

Northwest *Mechanical Conference attended by 440 — Newspaper Color, Printing Ink Progress and Stereotype Molding Combinations important topics discussed*

By STAFF WRITER

THE Sixth Annual Northwest Mechanical conference, held at Hotel Radisson, Minneapolis, Minn., February 12, 13 and 14, drew an attendance of 440. An increased interest among commercial shop men was evidenced by the fact that 37 of the Minnesota delegation were from commercial shops. The meeting was the tenth anniversary of the old Machinists' club from which the Northwest Mechanical conference originated.

Exhibitors were Imperial Type Metal Co., C. M. Kemp Mfg. Co., Linotype Parts Co., Metals Refining Co., The Morrison Co., J. A. Richards Co., Challenge Machinery Co., Teletypesetter Corp., Chemco Photo Products Co., Consolidated Photoengraving Equipment Co., Printers Rule Co., and Kellogg Switchboard & Supply Co., from outside the Twin Cities, and the Twin Cities firms of Richardson-Sovde Co., Inc., George Curle Products Co., Monomelt Co., Inc., Samuel Bingham's Son Mfg. Co., local branch, all of Minneapolis and Perfection Type, Inc., St. Paul.

Sponsors for the get-together, in addition to exhibitors, the following firms and individuals: Abitibi Service, Inc., Ace Belting Co., American Type Founders, Atlantic Zinc Works, Beveridge Paper Co., Charles H. Brown, Burgess Cellulose Co., Certified Dry Mat Corp., Cline Electric Mfg. Co., Thomas M. Dolan Co., Eastern Newspaper Supply Co., Inc., General Electric Co., George H. Morrill Co., Goss Printing Press Co., Hamilton Mfg. Co., Hammond Machinery Builders, Harold M. Pitman Co., R. Hoe & Co., Inc., Howard Flint Ink Co., J. M. Huber Ink Co., Ideal Roller & Mfg. Co., International Printing Ink, Intertype Corp., C. I. Johnson Mfg. Co., Lake Erie Engineering Co., Lanston Monotype Machine Co., Ludlow Typograph Co., J. Thomas McHugh Co., Margach Mfg. Co., Mergenthaler Linotype Co., Minnesota & Ontario Paper Co., Minnesota Mining & Mfg. Co., Mohr Lino-Saw Co., New England Newspaper Supply Co., Niles & Nelson, Inc., Printing Equipment Corp., Tingue, Brown & Co., Twin City Lino Service, United American Metals, Vulcan Proofing Co., Western Newspaper Union, Wood Flong Corp., and Wood Newspaper Machinery Corp.

General assembly was at 8 a.m., Feb. 13 in the Radisson Main ball room with President Charles R. McGuire, Mechanical Superintendent of the Minneapolis *Star* and *Tribune*, presiding.

Following invocation by Joseph Hick of the St. Cloud (Minn.) *Times*, Mayor Eric Hoyer of Minneapolis delivered the address of welcome. Outlining the conference schedule, President McGuire announced that Duluth, in conjunction with Superior, Wis., wishes to be host to a Northwest Mechanical conference at some time in the future, a deviation which would necessitate a summer conference, and that a showing of hands on this proposal would be called for at the banquet, as would also be done on a proposal to change meeting days in future years to Friday, Saturday and Sunday. (Both proposals got strong support at the banquet.)

Photoengraving Clinic

THE Photoengravers clinic was in charge of Ebbie Jennison, Engraving Superintendent and Lloyd Gardener, Day Engraving Foreman, both of the Minneapolis *Star* and *Tribune*.

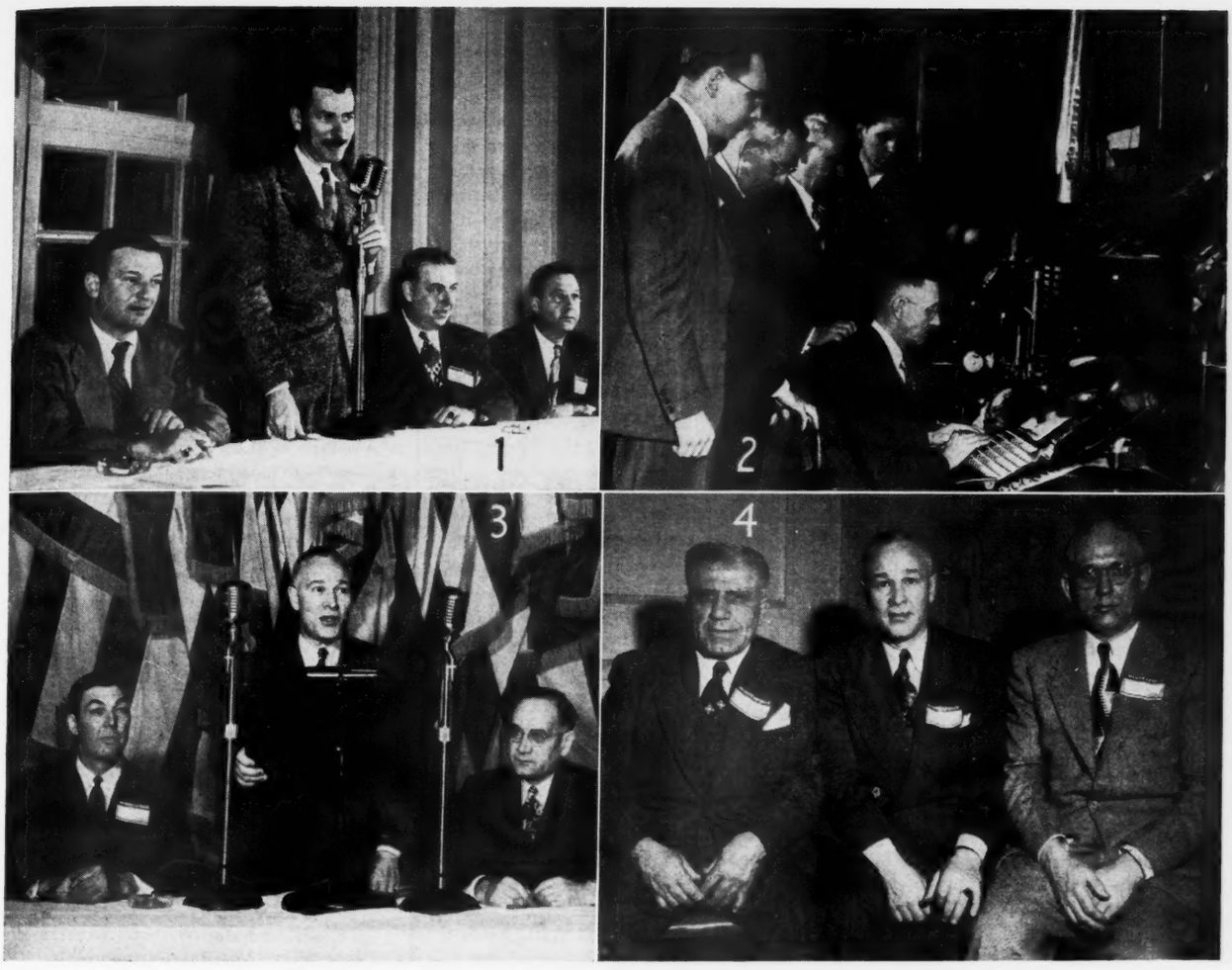
Mr. Jennison presided and introduced the first speaker, Sam Anson, jr., sales manager, Chemco Photo Products Co., Glen Cove, N. Y., who discussed *New Engraving Developments and Equipment*.

Mr. Anson's talk dealt almost exclusively with Chemco products, the Chemco Cold Grid photoprinter, which, he said, had been described in detail by A. J. Powers at the Pittsburgh ANPA meeting. Copies of Mr. Powers' discussion were available in the display hall.

Robert G. Patterson, technical director, International Photoengravers Union, next discussed *Four-Color Newspaper Pictures*.

Mr. Patterson revealed there has been a tremendous upsurge of interest in newspaper color printing. A survey in September showed 27 plants proposing to have color units installed by June 1, 1949. Another survey taken two months later showed 40 papers with color units installed or in process of installation, with indications that a total of 52 or 53 would have color units by June 1.

Publishers all over the country are interested in spot news pictures in color, he said, but some of the enthusiasm for color advertising has been cooled by a Canadian law which requires that the article advertised must match the color of the article offered for sale or the purchaser is eligible for a refund.



Some of the Executives Attending Northwest Mechanical Conference

1.—Robert G. Patterson, Technical Director, International Photoengravers Union, tells Northwest Mechanical Conference photoengravers of new developments in four-color newspaper pictures. Listening are (left) Sam Anson, jr., Sales Manager, Chemco Photo Products Co., who also discussed new photoengraving developments and, seated (right) Ebbie Jennison and Lloyd Gardener, both of the Minneapolis *Star* and *Tribune*, clinic co-chairmen.

2.—William J. Davies, Day Side Composing Room Foreman, Minneapolis *Star* and *Tribune*, seated, demonstrates a G-4 Intertype to (left to right, standing) Ralph B. Stevens and W. H. Pickett, both of the Marshall (Minn.) *Messenger*; D. C. Entler, Decatur (Ill.) Newspapers, Inc., while Richard Varcoe, *Star* and *Tribune* Machinist, watches to see that things go right.

3.—The Northwest Mechanical Conference will come to order. President Charles R. McGuire opens the assembly at Hotel Radisson, Minneapolis, Feb. 13. Left is Joseph Hick, St. Cloud (Minn.) *Times*, who delivered the invocation; (right) Mayor Eric Hoyer of Minneapolis, who delivered the address of welcome.

4.—Officers of the Northwest Mechanical Conference are (left to right) Joseph J. Cory, Head Machinist, St. Paul *Dispatch* and *Pioneer Press*, First Vice President; Charles R. McGuire, Mechanical Superintendent, Minneapolis *Star* and *Tribune*, President, and Vernon G. Eck, Printing Instructor, Dunwoody Institute, Minneapolis, 2nd Vice Pres. and Secretary-Treasurer.

In many cases, the publishers' rush to color equipment has been extremely embarassing to photoengravers, Mr. Patterson said, since the photoengravers quite frequently learned only when the color units were on the way or actually ready for installation that they would have to deal with color. Many of the publishers evidently thought that it was no more difficult to prepare four-color plates than to prepare black and whites.

A check of papers producing four-color work shows that two methods are in use —one-shot camera and the use of Ektachrome or Ansco color film. Of the two, he said, film is preferable because the one-shot camera equipment is expensive, it is almost impossible to standardize plates as to color and the photographer is at the mercy of each new batch of dry plates.

Kodachrome, Ektachrome and Ansco color film previously had the disadvantage of the amount of time necessary in processing to produce color plates. Much of this difficulty has been eliminated in the case of Ektachrome and Ansco color film, he said, by refinement of a process worked out by the Air Force during the war. This process, now available for color printing, makes it possible for negatives to be processed up to the stage of color separation in 1 hr. and 50 min.

Dehydrating equipment produced by Oscar Fisher, New York, now makes it possible to have a set of four-color negatives bone dry in 2 min. without damage to the negatives. This is accomplished by drying them at 55 to 58 deg. F. with relative humidity held to less than 2%. This process, he said, stabilizes color and eliminates registration troubles 90%.

Chief factor in producing good color plates, Mr. Patterson said, is still the skill and good judgment of the man who makes the color separations. He can make even color transparencies which aren't so good look OK in the finished product if he knows exactly what he wants in the finished product.

In making color separations, two methods are in use, the clinic was told—direct and indirect, and the indirect is best for newspaper photos because of the time element.

Four-color process has been outlined with a working manual so that one can

take a reading from Ektachrome as to red, yellow and blue values and gauge the color correction quite accurately, Mr. Patterson said.

Color separation for four-color work and the mechanics of photography for this work are so radically different from black and white that this should be treated as a separate craft, the speaker said, adding that there is likely to be considerable embarrassment in plants that have installed color units and are expecting to get good color work in a short time. The fact of the matter is that color equipment has been coming along faster than preparation for color production. The whole thing has been too unexpectedly dumped into the laps of the photoengravers and there are not sufficient color men with the proper training to handle the situation, he said.

Mr. Patterson expressed the opinion that the use of magnesium plates is going to become more and more important to the smaller newspapers.

Line-casting Clinic

THE Line-casting clinic had G. W. Wraggett, *Star* and *Tribune* Composing Room Chief Machinist and William Gordon, Head Machinist at Bruce Publishing Co., St. Paul, as chairman and co-chairman with Joseph Hick of St. Cloud *Times*, presiding.

Mr. Hick invited the group to visit the *Star* and *Tribune* plant, pointing out that it would offer an opportunity to see a big plant in process of remodeling and expansion. He called attention to various features on machines at the *Star* and *Tribune*, including automatic stops, shutoffs and signal light to machinists' bench. He said the newspaper now has 48 Linotypes and Intertypes and expects finally to have 60.

Guest speakers G. P. Hammond, Intertype Corp.; E. R. Deater, Mergenthaler Linotype Co., and Ed Harding of the School of Printing and Journalism, South Dakota State college, were introduced. Only Mr. Harding gave a formal talk. Mr. Hammond and Mr. Deater electing to answer questions from the floor.

Mr. Harding explained that his school had been closed to all except GIs directly after the war and that even now registrants were limited to a 150-mile radius. The two-year course in printing is sufficient, he said, so that a graduate can get a union card after working one or two years in a shop.

In the question period in which Mr. Hammond, Mr. Deater, George Curle of George Curle Products Co., Minneapolis, and others participated, there was a wide range of questions and answers.

To the question of how to prevent ejection troubles, the answer was that various things need watching—such as locking studs, and the ejector blades should be equally long, trimming knives should be kept properly set.

Low letters in a slug might be caused by a shallow-punched mat, warped mold, porous slug, poor front lockup and burred mats in the font, it was explained.

Shearing of letters on bold face is probably due to faulty elevator adjustment and the drop of the first elevator after the cast is made should not be more than 0.010 in., it was said.

There was considerable discussion of the proper method to be used in moving line-casting machines. Consensus was that magazines and distributors should be removed, metal pot tied down and the machine placed on skids.

A question of what to do when display faces will not cast properly on a Linotype, brought up the perennial discussion of the cause—dirty metal. It was pointed out that extreme care must be exercised to prevent dirty metal getting into the metal pot.

The Stereotype, Pressroom and Maintenance Machinists' clinic, held at 2 p.m. Sunday was one of the best ever held at a Northwest Mechanical conference. Don Little, Minneapolis *Star* and *Tribune* Stereotype Supt., and William Benson, St. Paul *Dispatch* and *Pioneer Press* Pressroom Foreman, were co-chairmen. Speakers were J. R. Watson of the J. M. Huber Corp.; Frank M. Tighe, Vice President, Certified Dry Mat Corp., and M. L. Gebhard, Minnesota Mining & Mfg. Co.

"Fiddling Around"

IT is refreshing sometimes to get the viewpoint of someone who isn't exactly acquainted with the trade terms used in the Graphic Arts Industry, especially terms which are taken seriously by those engaged in the industry and which seem to be expressive. Just recently at the Tulsa (Okla.) Mechanical Conference, Nathan Janco of the Centrifugal Casting Machine Co., who is an engineer, discussed the centrifugal method of casting electrotype and stereotype plates, sponsored by Robert R. Myers of the Capital City Printing Plate Co., Des Moines. When he started to speak, Mr. Myers confessed he wasn't any too familiar with all of the terms used in the centrifugal pressure casting process. He got along all right until he came to the benefits to be derived from centrifugally-cast plates when putting curved plates on the press. He paused. His engineering mind seemed to be at work. He said: "I notice that when you send a set of plates to the pressroom there is a considerable lapse of time between the time the plates are put on the press and before the press is ready to run. I don't know what you call it, but I would call it 'fiddling around,'"

He seemed to be nonplused at the amount of time spent in makeready before an expensive piece of machinery could be gotten into production.

Late Developments In Ink Industry

MR. WATSON spoke first on *Late Developments in the Ink Industry*. The newspaper industry requires an ink that will not offset on the first impression cylinders; it must not mist and should dry hard immediately, he said, adding that while those factors are being met now, better inks are being developed which are not yet ready for the newspaper field to a large extent. Those inks, when adapted to the newspaper field, will eliminate offset, smudge and rub-off and will print with greater clarity and contrast than present newspaper inks.

He explained that furnace black has strongly invaded the channel black field in production of newspaper ink since the war because of the higher production possibilities of furnace black. However, he said, furnace black is not the equal of channel black in viscosity.

The old theory that the more carbon black used, the blacker the ink, and that to make it less black you simply used less ink and increased "mileage" has been proved false, the clinic was told, because it was found that there is a certain fine limit which you cannot pass without the ink film breaking up in the solids and causing pinholes.

Relative blackness of 91% to 91½% is as much as you can get on newsprint to make it show up properly, the speaker said, warning that when you go beyond that you add carbon black that can only result in rubbing and smudging.

The efforts of his company are now being directed toward developing a black or combination of blacks which will permit pigment concentrations to be held at a fairly low level without loss of viscosity.

Going into discussion of inks developed for other fields which may have possible application in the newspaper field, Mr. Watson said that heat-drying letterpress inks, first developed for the magazine field, have been perfected to where they will operate on nearly any stock and have good abrasive resistance. They dry instantly and completely, give no offset or strike-through, are non-misting and print sharp and clear, but have the disadvantages of being four to five times as costly as present newspaper ink, present a fire hazard and there is a lack of room on

(Continued on Page 50)

Mechanical and production executives are invited by the editor of *Printing Equipment Engineer* to submit informal descriptions of devices which have helped production in their plants.

BOOKS
RECEIVED

How to Prepare Art and Copy for Offset Lithography

CONTAINING over 100 pages consisting of typographic design, illustration and valuable text is the new book, *How to Prepare Art and Copy for Offset Lithography* by William J. Stevens and John A. McKinven. The authors have contributed a useful book to the lithographic industry in an effort to improve both art and copy through understanding preparation. The text should be of value to artists, advertising agencies and students, as well as the lithographer.

Highlight of the book is the four-color frontispiece on Kromekote of a typical fishing scene. The foreward is by John J. Deviny, Public Printer of the U. S., who relates the story behind the book's preparation and the aid it will surely bring to readers.

The 12 chapters and over 125 illustrations which compose its contents, deal with the actual method of how to prepare art and copy. The authors have not intended to cover the general subject of copy preparation, hence, the text deals with what they call the abc's of preparing art and copy for offset-lithography.

The reader is introduced to the subject matter by a chapter devoted to a simple, but yet complete explanation of lithography. Ensuing chapters deal with how lithography is designed, planning your photography for better reproduction, marking photographs, retouching photographic prints, type proofs, and preparing line art illustrations and lettering. The numerous illustrations are of invaluable aid in the understanding of the text.

Stevens and McKinven have also included chapters on how to get the most out of the tones in art work, the paste-up, adding color to the paste-up and art for color processes. A concise, informative glossary of lithographic terms and a cross-index for reference purposes round out this well prepared text.

The authors have qualified backgrounds from which they have drawn in preparing this book. Stevens was formerly Plant Superintendent of Edward Stern & Co., Philadelphia, and at present, is Executive Secretary of both the NAPL and Metropolitan Lithographers Assn., Inc. McKinven is an account executive with Fuller & Smith & Ross, Inc. Much credit must be given to Designer Steven L. Atzel for his presentation of the book's contents.

How to Prepare Art and Copy for Offset Lithography—By William J. Stevens and John A. McKinven, contains 107 pages and measures 8½ in. by 11 in. Hard bound, lacquered cover lithographed on cloth in burnt orange and black. Over 125 illustrations reproduced by two, three and four-color lithography. Printed by offset on 80 lb. Cumberland Offset, Wove Finish. Type faces used are Bulmer, Baskerville and Bodoni Book. Designed by Steven L. Atzel. List price, $5.25 postpaid, available through *Printing Equipment Engineer*.

Cork Stops Slurs

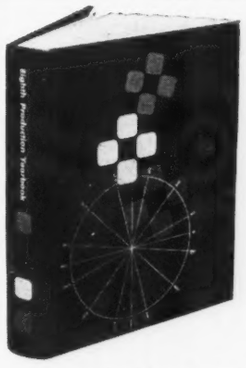
HEAVY platen press forms, especially forms with heavy borders along the side, can be prevented from slurring by the use of sections of cork as used by John G. Blowers, foreman of the Band & White printing plant, Spartanburg, S. C. Mr. Blowers keeps at hand a few common corks such as are used in medium sized bottles. Whenever a form slurs along the sides he cuts some sections from the cork, each section being about ⅛ in. thick. This thickness will vary according to the space between the tympan paper and the underside of the grippers. Generally, however, about the ⅛ in. thickness will be sufficient. On one side of each section of cork, Mr. Blowers cuts a small groove deep enough to accommodate a piece of string. One or two of these cork sections are then tied to the front surface of each gripper with ordinary cord. As the press closes for the impression the sections of cork tied to each gripper will push the printed sheet quickly away from the offending border or cut in the form after printing, thus preventing any slurring.

Education Conference

The 24th Annual Conference on Printing Education of the National Graphic Arts Education Assn. will be held at Pressmen's Home, Tenn., on June 20 to 23, according to an announcement by Fred J. Hartman, Educational Director. A feature of the Conference will be a day given over to educational visits to the nearby Kingsport Press and the Mead Paper Corp.

Rich & McLean Dealers

Rich & McLean, Inc., has announced that Typesetters Machine Co. has been appointed as a new dealer for R. & M. typesetting machine parts. The new dealer, located at 4 Rowes Wharf, Boston, will cover New England and carry a stock of R. & M. parts and composing room equipment. Rich & McLean has also issued renewal franchises to other dealers: M. E. Barager, Seattle, Wash.; A. J. Cunningham, 31st and Calvert Sts., Baltimore, Md.; Perfection Type, Inc., St. Paul 1, Minn.; Lino Service Co., 2516 Larimer St., Denver, Colo.



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Problems of a Dry Mat Manufacturer

By VICTOR E. FISHBURN*

*Vice President Burgess Cellulose Co., Freeport, Ill. Abstract of address presented at the Southern Newspaper Mechanical Conference (Western Division), Tulsa, Okla., February 21 and 22.

TO THE uninitiated, the manufacture of stereotype dry mats appears to be a simple and far from a complicated process. By telling you about some of the problems, I hope you will be more tolerant when troubles occur in the stereotype departments.

There is one phase of the mat business which is most unusual. I question whether there is anything which a newspaper buys, which is vital to its production that is not contracted for in specific amounts and with definite delivery dates, or ordered well in advance to insure delivery on time. For some years past, machinery and many materials have been ordered with rather indefinite delivery promised in the future. Such orders are non-cancellable orders. Rotary press newspapers cannot print a single paper without a stereotype dry mat. It would seem that a product of so much importance would warrant a fixed arrangement of some kind, assuring delivery.

While a large percentage of the mat business is on standing order, which is a tremendous help to the mat manufacturer, there is no fixed commitment or obligation on the part of the newspaper. A standing order can be and is frequently increased, decreased, shipping date advanced or the order cancelled on a moment's notice. This, in itself, creates a real problem. Add to this the large number of newspapers which are not on a standing order, and the problem is multiplied. When an order is received for mats, either by mail or by telegram, there is never a request for shipping date. The order specifies "ship at once" and the newspaper placing the order expects shipment to be made at once. The shipment *is* made at once.

There are many things which make delivery at a moment's notice a difficult job. The newspaper business does not present any fixed standards, as far as mats are concerned. As an example, the different thicknesses which are required are amazing. The range is from 0.018 in. to 0.032 in. or perhaps, 0.034 in. There is a demand for every thickness over this range.

The range in caliper may seem large, but it is small when compared to the moisture requirements. Mats are being used over a range of 11% to 27% or 28%. This covers shrinkage from about ¼ in. to over 1 in. It is necessary to furnish moisture over this range for nearly every caliper. Moisture primarily controls the shrinkage. To get a given shrinkage for any moisture content not only requires rigid control over the entire process, but necessitates the same rigid control over all materials used in making mats. Further—to insure uniform shrinkage, a seasoning period is required before shipment can be made. It is apparent that this further complicates the manufacturing problem.

Another aggravating problem is that different equipment requires different properties in the mat. A tubular casting box for a tubular press requiring one or two casts takes a mat far different than one used in an automatic casting box where a large number of casts are necessary. This forces the mat manufacturer to make more than one type of mat. This again means making a variety of thicknesses over a wide moisture range.

Conditions are continually changing in the newspaper business. One change which has been taking place has added a number of problems. I refer to the change to very high shrinkage, to conserve newsprint and thus increase the number of printed pages. There was a time, not so long ago, when, if anyone asked whether a mat could be made that would give 1 in. shrinkage, the answer would have been "No". Making mats was simple by comparison, when the almost universal shrinkage was $\frac{3}{8}$ in. There are a few papers on this low shrinkage today. They are the exception—not the rule. To make a mat which will give a lot of shrinkage and at the same time make good printing possible, has not been and still is not an easy task. From a shrinkage standpoint, we are about at the limit of materials in use at present. Unfortunately, moisture plays a major part in getting shrinkage. Experiments are in process to produce a mat which will give increased shrinkage at reduced moisture content. We hope that such a mat will give improved reproductions. This hope is far from the point of realization and may never be realized. The mat for higher shrinkages, with its greatly increased moisture, ran the mat manufacturer into a number of unanticipated problems. Among them was good release from the form in molding, as well as, from the cast.

Direct pressure machines coming into use are bringing about another set of conditions. It is reasonable to assume that a different mat must be developed for this purpose. Work is being done in this connection.

In our laboratory we have a direct pressure press, as well as a roller molder and much other equipment, including a Master Sta-Hi Former, to study these problems. Our sales representatives are all experienced stereotypers, and as they call in at the plant, they work with our laboratory men on new developments as well as problems encountered in the trade.

More and more newspapers are going to color. Newspapers getting out magazine sections, with proper equipment and time to do a good job, are using a mat designed for this purpose. This is just another mat which the mat manufacturer is called upon to supply, along with all the others.

In addition to the newspaper business, mats must be supplied to commercial shops turning out advertising mats for the newspaper. The making of these mats is quite easy, in comparison to newspaper mats.

I could add many more problems. Mats must be wrapped in packages so as to maintain the moisture which has been put in them to give the shrinkage that is required. Even the number of mats in a package is not standard. Packages of 100, 50 and 25 are being shipped regularly. Every precaution is taken to protect the mats so that they will reach their destination with packages unbroken and moisture intact. We are at the mercy of the carriers in this respect.

In view of the things which I have just told you, does it not seem impossible that the mat manufacture can get off a shipment to you by express within an hour after receipt of your order, and give you the thickness, the shrinkage, and any other specifications which are necessary? The mat manufacturer has made it his business to do this. It has not been easy.

1948 Hoe Shipments

AMONG approx. 300 units of large press equipment shipped during the 1948 fiscal year was the bulk of the largest order for rotogravure printing press equipment ever placed in the history of the industry, said Joseph L. Auer, president of R. Hoe & Co., Inc., recently. This order was for Triangle Publications, Inc., publishers and printers of the Philadelphia *Inquirer*, *Seventeen Magazine* and other publications.

Mr. Auer's statement continues: "Other orders on which shipment was started during the year were a battery of newspaper supplement presses, for Hearst's *American Weekly*, as well as an installation of newspaper presses, totaling 54 units and folders and auxiliary equipment, also for the Philadelphia *Inquirer*.

"Large rotary web presses were also shipped to such publications and printers as Boston *Globe*; Cleveland *Press*; Tulsa (Okla. *World* and *Tribune*; Troy (N. Y.) *Record*; R. R. Donnelley & Sons Co.; Meriden (Conn.) *Record*; Los Angeles *Times-Mirror*; Portland (Me.) *Press Herald Express*; New Orleans *Times-Picayune*; Norwalk (Conn.), *Hour*; Northampton (Mass.) *Gazette*.

"Hoe's metal decorating press line included orders from American Can Co., Continental Can Co. and other users.

"Also completed during the fiscal year were new designs of paper and metal offset printing machines. These presses are revolutionary in their special fields and should render obsolete much existing equipment.

"As is the case with industry in general, printers and publishers are faced with continually rising production costs, which accentuates the need for more efficient printing machinery. To keep abreast of these increasing demands, Hoe is conducting extensive research on many phases of its products."

EQUIPMENT & SUPPLIES

Tab or Ticket Inserter

THE Portable Model C-2 Tab Inserter has been announced by Counter and Control Corp. The device automatically inserts paper tabs or tickets as shown in the illustration at preselected intervals in the delivery loads of presses, sheeters and similar equipment. Manufacturer states the Ticket Inserter can be used with almost all types of machinery equipped with an automatic vertical pile delivery.

As will be seen in the illustration, the Inserter device is mounted on a portable column. It is fully adjustable to bring the inserting arm in proper location over the delivery pile for cutting off the marker or ticket stock so as to leave the marker projecting from the pile. The roll of marker stock is mounted at the top of the inserter column.

The inserter is solenoid operated. The marker stock is always fed directly over the top of the stack on the press delivery. As the solenoid is energized, the marker stock is fed ahead about 4½ in. by a pair of feeding rollers mounted at the end of the adjustable arm. The closed circuit is maintained for several counts, allowing several additional sheets to fall on top of the marker tape thus holding it in place. As the circuit is opened, the paper is cut from the roll. The tabs or markers are lowered to the stack with the downward movement of the delivery.

The inserter is controlled by a solenoid actuated CMS Cyclo-Monitor. The speed of the control is rated at 350 counts per min., max. The Cyclo-Monitor may be set for any count from 1 to 2000, or to any even count from 2000 to 4000. At the end of the preset count the Cyclo-Monitor closes a switch which in turn operates the ticket inserter. The Cyclo-Monitor resets itself instantly and automatically without lost counts. In this way the complete cycle process can go on indefinitely without manual control. If a change in the marker interval is desired, the Cyclo-Monitor can be reset quickly.

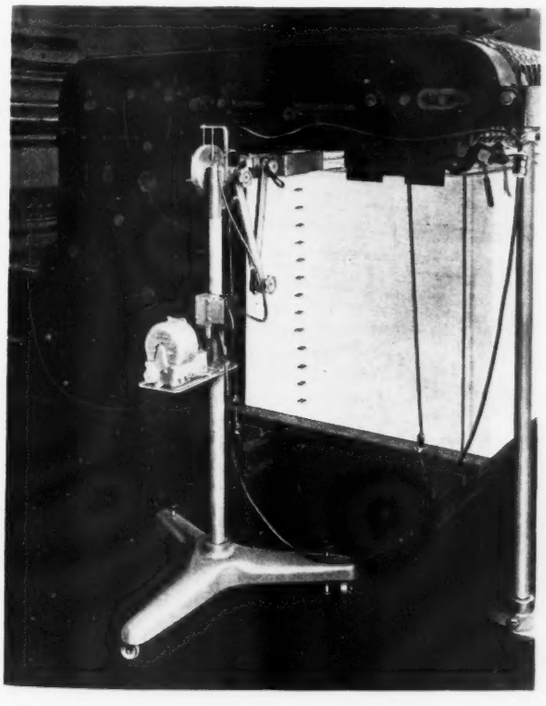
Counting is done electrically. A feather-action switch is supplied for this purpose. The counting switch is mounted as close as possible so that the passage of each sheet will cause a single switch closing. It is this impulse which transmits the count to the Cyclo-Monitor. Leaf spring switches are mounted as closely as practicable to the conveyor tape or the clamping fingers which bring the sheet to the delivery.

The portable ticket inserter is wired completely. The only wiring to be supplied by the customer is that from a 110 v., 60 cy. outlet to the counting switch and receptacle which receives the extension cord plug.

The adjustable arm can be locked in place after adjustment by means of a single set. Tools are not required.

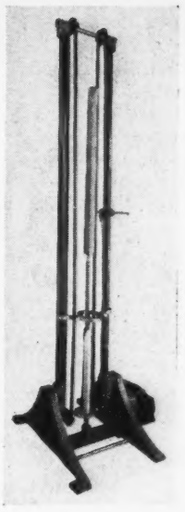
The Portable Model C-2 Tab Inserter can be used on presses wherever sufficient clearance is available for access to the stack by the ticket inserter. Most types of presses can be accommodated because so many possible mounting positions can be obtained.

Further information may be obtained by writing Counter and Control Corp. in care of *Printing Equipment Engineer.*



View shows press delivery pile with Counter and Control Corp.'s Model C-2 Tab or Ticket Inserter in position. Device automatically inserts and cuts off a 4½ in. tab between any predetermined number of sheets as they come from the press.

Vertical Speed Jacket Machine—A vertical speed jacket machine for recovering offset-lith damping rollers has been announced by Roberts & Porter, Inc. The machine recovers rollers of any diameter up to 66 in. in length. Manufacturer states it will cover one inch of roller per second. Floor space is approx. 9 sq. ft. Operated by inserting core of roller in the guiding tube and turning electric switch. Further information may be obtained by writing *Printing Equipment Engineer.*



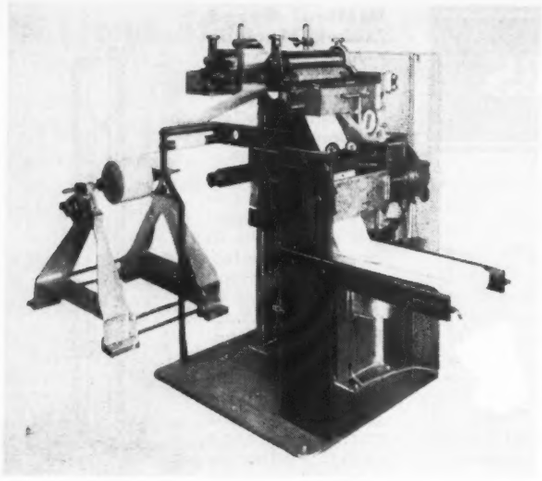
Universal Hand Shear

THE Hobbs Mfg. Co. has recently announced an improved hand shear called the Jacques Universal Shear. Featuring both a medium size model up to 50 in. with a welded steel base and a heavy duty model in 55 in. and 60 in. sizes with a reinforced flame-cut base, the new shear is adapted to the hand cutting of paper, rubber, mica, cardboard, asbestos, light metal and other materials.

Standard model of the Jacques Universal Hand Shear manufactured by Hobbs Mfg. Co. with sizes from 30 in. to 50 in.

The balanced blade is made of composite steel with a carbon tool steel edge. The foot clamp is adjustable to the thickness of stock being cut. Table gauge is adjustable and locks parallel to the blade, while the back gauge is adjustable up to 20 in. and is equipped with a spring gauge for narrow work. The kiln-dried birch table is set on a heavy cast base and a worm gear arrangement adjusts drop bed and back gauge.

Size range of the standard model includes 30 in., 40 in., 45 in. and 50 in. Weight of all models is from 540 lbs. to 1200 lbs. Further information may be obtained by writing Hobbs Mfg. Co., Jacques Div., in care of *Printing Equipment Engineer.*



Two-color narrow web roll printer (or press) with separate roll reel stand and brake and alignment mechanism, manufactured by Frostad Engineering Co. using sticky-back rubber plates. Pile delivery or floor conveyor can be attached.

Narrow Web Roll Printers

FROSTAD Engineering Co. has announced development of a Two Color Narrow Web Roll Printer (or printing press) for printing on stock fed from a roll. The press is manufactured in various combinations, such as standard printers' oil ink fountains, rotogravure, or quick drying aniline ink fountains. Manufacturer states that acetate and vinyl films, plyfilm, cellophane, glassine or paper package wraps, labels, letterheads, gummed and stay tapes, and narrow woven fabrics are among the materials which can be printed on the press. These printers are available as either a sheeter with single rewind or roll-to-roll for short order runs of gummed tape, scalloped slit edge, etc.

Second color register device is featured on the printers along with an automatic registering device on the sheeter. Both of these can be in operation while running. If roll-to-roll printing is desired, the sheeter cutterhead can be cut out by lifting intermediate gear off the change gear and run web to rewind mandrel.

This one frame printer, featuring side load or unloading, has a collapsible mandrel for 3 in. cores or solid spindles, as required. Other features include 12 in. and 24 in. unwind (up to 50 in. on separate reel stand) with dual rewinding (up to 50 in. on drum rewind).

All of the printers have a single etched roller in the first color unit with an oscillating blade that cuts off ink leaving the quantity necessary. Second color unit has a rubber roller in ink fountain with oscillating blade and transfers ink to an etched roller. Aniline ink fountains can be used with or without circulating pumps. The pumps are for long runs to hold uniform density and color of ink.

Manufacturer recommends a 1 to 1½ h.p., 4 to 1 variable speed, electric motor. Specifications: 3 in. wide printer, 48 in. long by 60 in. high by 30 in. deep, 850 lbs., maximum printing surface of 3 in. by 12½ in.; 6 in. wide printer, floor space same as 3 in. printer, 1000 lbs., maximum printing surface of 6 in. by 12½ in.; 12 in. wide printer, floor space and weight upon request, maximum printing surface, 12 in. by 12½ in. Type cylinders for all printers are 2 in. to 4 in. diam.

Auxiliary units can be incorporated according to the manufacturer, such as a slitter and sheeter with one or more knives, and slow conveyor delivery. Further information may be obtained by addressing your request to Frostad Engineering Co., in care of *Printing Equipment Engineer*.

Pre-shrink and Flat Scorcher

ANNOUNCEMENT of a scorcher for pre-shrinking and scorching full page stereotype mats has been made by the American Publishers Supply, Inc. The full page size machine is supplied with a hinged panel at the front. Attached to this panel is the thermostat to control the heat and two timers. One timer is for scorching and the other for pre-shrinking. The hinged panel can be opened for access to instruments and wiring.

Full page size schorcher for pre-shrinking and scorching stereotype mats announced by American Publishers Supply, Inc.

The scorcher is equipped with bearer arms on the sides of the machine. These bearer arms are on hinges and can be placed in position under the cover to keep the weight of the cover off the matrix. In this position it is a pre-shrink machine and can be operated on the pre-shrink timer which is set at 15 sec. With the bearer arms out of position, the weight of the cover is on the mat, and it is then a scorching machine and can be operated on the scorching timer which is set at 1½ min. Both timers are adjustable to any period from 1 sec. to 5 min.

The cover is a one-piece perforated steel plate equipped with stops. The cover will stay in an open position without being held while placing or removing the mat. The body is constructed of aluminum and steel with angle iron reinforcements on each corner. Additional information may be obtained by addressing your request to American Publishers Supply, Inc., in care of *Printing Equipment Engineer*.

Little Giant Press Divider — The Printing Machinery Co. has announced development of a special PMC Flinker Fountain Divider for Little Giant presses. The new divider may be attached quickly without the use of special tools. Use of PMC dividers permits printers to reduce the size of the ink fountain when less than maximum size sheets are being printed, saving ink and reducing wash-up time. They can also be used to separate inks of different colors in the same fountain so that two or more colors can be printed simultaneously. Lee Augustine, Vice President of The Printing Machinery Co., said the new Little Giant dividers are now available from stock.

Press Parts Catalogs

THE Miller Printing Machinery Co. has recently published a press parts catalogs for each of four Miller presses. The catalogs cover the 20 in. by 26 in. Simplex, the 27 in. by 41 in. SY Single Color, the 27 in. by 41 in. TY Two-Color, and the 28 in. by 41 in. CY Cutter and Creaser. The catalog illustrates the principal part of each of these presses. In addition, auxiliary parts such as taper pins, set screws, etc., have been illustrated or listed as required under the principal part number. The automatic lubrication system is also illustrated in schematic drawing with each individual drip plug shown. The format is 9 in. by 12 in., running from 48 to 64 pages per book. An average of 28 full page illustrations is used. Copies are being mailed to all Miller press users.

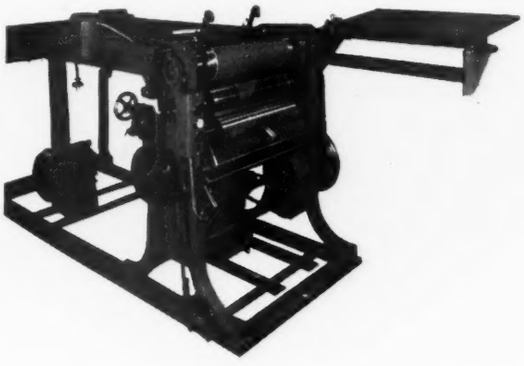
Stoessel Gravure Press

THE Stoessel Sheet Fed Gravure Press has been announced by Stoessel Machine Mfg. Co., Inc., as being available in sizes from 14 in. by 19 in. to 34 in. by 42 in. These automatically controlled presses are designed to print from copper plates. Press is so constructed that adjustments of impression and plate cylinder, doctor blade, and inking roller can be made without difficulty. Feed board swings away to permit access to cylinders and fountain.

The sheet is delivered by means of a carrier which stops intermittently to permit the sheet to travel its full length and then stops until the next sheet is fed on to the carrier. In this operation, several sheets are on the carrier simultaneously. A series of tubes are located over the carrier through which drying air is constantly blown to assure complete drying before the sheet is deposited on to the delivery table. The delivery table will automatically lower as the pile increases.

A blower system is synchronized to the operation of the press and works in unison with the feed. The press is also made to accommodate solid cylinders and can be made for hand or automatic feed. Manufacturer states that the automatic press may be made to attain speeds in excess of 5000 i.p.h.

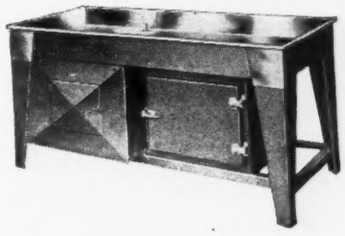
Further information may be obtained by addressing your request to Stoessel Machine Mfg. Co., in care of *Printing Equipment Engineer*.



View of Stoessel Sheet Fed Rotogravure Press with feed board in open position which allows access to cylinders and fountains.

Temperature Control Sink

W. A. BROWN MFG. CO. announced recently a heavy duty temperature control sink with a G-E refrigerating unit for the Graphic Arts industry. The unit is constructed around a heavy gauge stainless steel helio-arc welded sink. Temperatures are controlled thermostatically. Manufacturer states that solutions contained in



the sink may be maintained at a constant temperature indefinitely with a maximum variance of one degree. The refrigeration compartment, designed by General Electric Co. engineers, has a large compartment for storage of films and chemicals. The sink is available in three standard sizes: 20 in. by 24 in., 26 in. by 30 in., and 30 in. by 40 in. Special size sinks are available upon request. Further information may be obtained by addressing your request to W. A. Brown Mfg. Co., in care of *Printing Equipment Engineer*.

To Sell Direct

Ralph C. Persons, General Manager of the Geo. H. Morrill Co., Div. of Sun Chemical Corp., has announced that the sale of Morrill news ink to weekly newspapers throughout the U. S. has been taken over by the company. The arrangement, states Persons, is a part of the Morrill Ink Service Plan that is designed to assure equal attention to both those using a limited amount of ink and metropolitan newspapers.

Printing — A Career

Graphic Arts Technical School has made available a booklet for those who are considering the Graphic Arts as a career. Abundant in many well shot halftones, it lists 91 Graphic Arts departmentalized jobs for young men and women seeking careers. Nearly 25 illustrations accompanied by explanatory text takes the reader on a trip through a print shop to show and explain the various operations performed in the printing industry. The cover is composed of numerous pieces of printed matter reproduced in miniature in four colors. The 8½ in. by 11 in. booklet is titled *Choose Graphic Arts as a Career*. Copies may be obtained by writing Graphic Arts Technical School, 1104 Currie Ave., Minneapolis.

Your Help Needed

Missing since February 9 is Earl E. Conover, 35, partner in the Tri-State Offset Co. at 817 Main St., Cincinnati 2. Believed to be suffering from amnesia or a victim of foul play, Conover was last seen in a 1947 maroon Studebaker sedan bearing Ohio license 27-EC. There is a possibility that he might be continuing

Earl E. Conover, Cincinnati lithographer, missing since February 9.

the same kind of work, offset lithography, that he has done for the last 12 years. Conover's height is 5 ft., 11 in., weighs 230 lbs., has black hair and brown eyes. Is known to frequent bowling alleys. A $1000 reward has been posted with the Norwood, O. police for positive information leading to his whereabouts. Any person seeing this man or his automobile, should contact Charles W. Fritz, Chief of Police, Norwood, O.

How to Prepare ART and COPY for Offset Lithography

by William J. Stevens and John A. McKinven

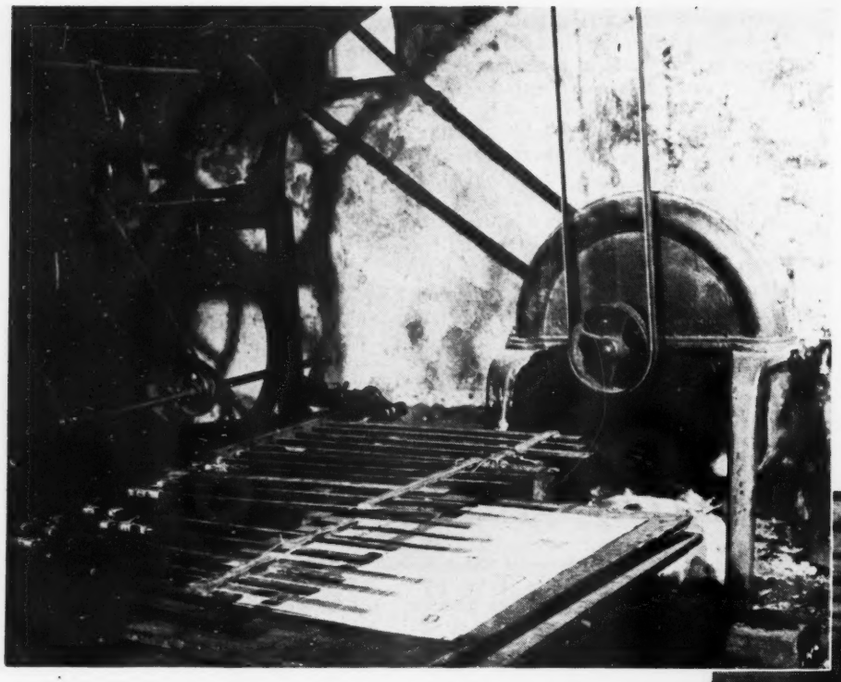
Newest book on copy preparation with foreword by John J. Deviny, U.S. Public Printer. Over 125 illustrations. Reproduced in 2 and 3 color lithography. Four color process on Kromekote. Contains design, photography, retouching, type proofs, "paste-ups", etc. Page size 8½"x11". Cloth lithographed cover

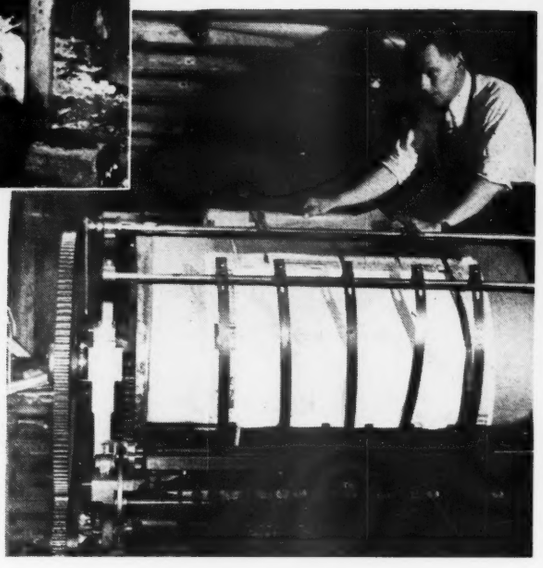
$5.25 postpaid

PRINTING EQUIPMENT *Engineer*

1276 W. 3rd St. Cleveland 13, O.

71-Year-Old Press Still Operated By An Old Water Wheel





The Georgetown (Colo.) *Courier*, a weekly newspaper, is edited by Jerome Dingerson. Page size of the paper is 11¾ in. wide by 16⅜ in. vertical measurement. In addition to his duties as editor, Dingerson explains: "First, I have to go out and get the news, write it, go out and solicit ads, write the ad copy, set up the type, make up the paper, print the paper, fold it by hand, mail and deliver the copies, balance the books."

Dingerson acquired the paper from the Randall family. In April 1948 he became editor. The paper was founded May 24, 1877 and up until Dingerson's incumbency, the *Courier* has had only two editors—father and son respectively. Its first editor, Jesse S. Randall, retired in 1926. His son, C. H. Randall edited the paper until January 1948.

The combination of an editor who also functions energetically as chief factotum in the mechanics of getting out the paper, plus a 71-year-old printing press and an undershot paddle wheel which furnishes the motive power for the presses in the plant is an unusual circumstance.

As will be seen in the larger of the two illustrations, the 71-year-old Potter Junior Drum Cylinder Press is equipped with fly-delivery the sticks for which are well splinted. The fly is in down-sheet position in the upper-left picture. In the lower illustration, Editor Dingerson is adjusting the sheet guides preparatory to feeding an edition. Notice the sheet bands in front of the cylinder. Press prints one side of the sheet once through the press.

At the right of picture (upper left) is shown the undershot paddle wheel which drives the press through one of the two belts. The other belt furnishes power to operate two platen job presses on the first (upper) floor. Power is derived through a Georgetown water main. The natural pressure of the water falling from the high mountain slopes turns the paddle in the wheel casing.

No one knows how much longer the ancient (by modern standards) paddle wheel and the press will be useful in printing the Georgetown *Courier*. But it is the proud boast of the editors that an edition hasn't been missed during the 71-year period.

1950 Printing Week Poster Stamp Contest

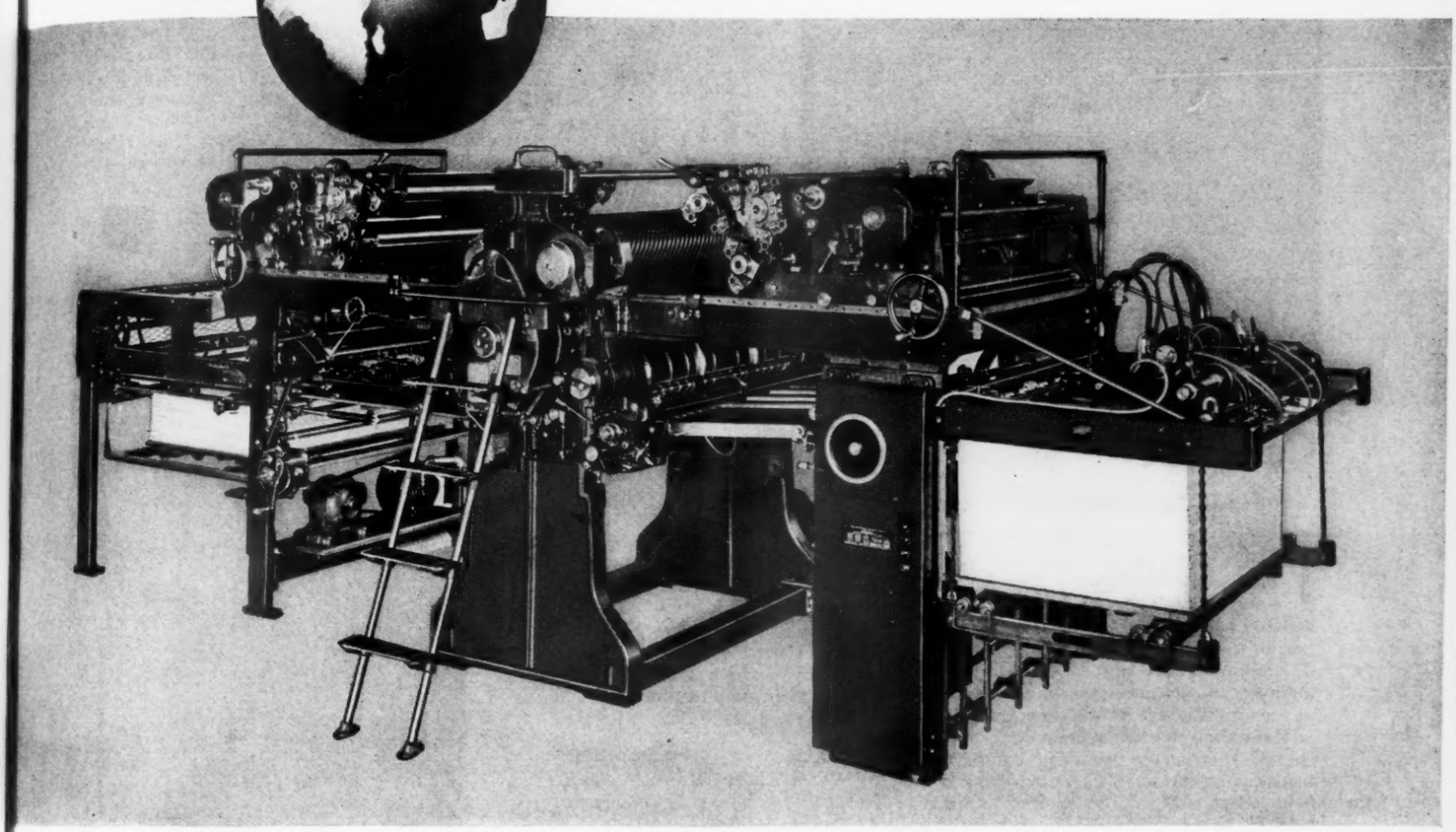
The International Association of Printing House Craftsmen, Inc., is again sponsoring a Printing Week Poster Stamp Contest for 1950. The purpose of the contest is to stimulate interest in the promotion of International Printing Week, held annually during the week of January 17 each year in many cities. Participation is granted to anyone connected with the Graphic Arts or its allied industries. All designs must be finished drawings, 3 in. by 3⅜ in., and should include the date, January 15-21, 1950.

Entries should be mailed to a local Club of Printing House Craftsmen, which in turn will be forwarded to John A. Waryn, Asst. Chairman, Public Relations Commission, 1312 Golf Terrace, Union, N. J. Deadline for all entries is May 14, 1949. A cup, suitably inscribed, will be awarded the winner of the contest. The next nine runner-ups will receive honorable mention certificates. Awards will be made at the International Convention to be held in San Francisco, September 4 to 7.

1949 Printing Week Poster Stamp in actual size. Contest for 1950 is now in progress.

Appointment of Stuart H. Smith as Cincinnati district manager of SKF Industries, Inc., and changes in personnel of other district offices has been announced by R. R. Zisette, General Sales Manager. Smith, who joined SKF in 1934, has been assistant district manager of the Detroit office since 1944. Named field representatives were: C. N. Benson and D. B. Eden, Boston; A. R. Ehrnschwender, Cincinnati; J. T. Paradise, Atlanta, and G. L. Hansen, Portland, Ore. Benson joined SKF in 1916 and was supervising engineer of the paper mill division for many years. Eden was formerly quality-control supervisor. Ehrnschwender, Paradise and Hansen joined the firm in 1948 as engineer trainees.

Creating new markets!



The world over, this Cottrell Two-color sheet fed rotary press is creating many new markets. It is putting printers and publishers in a position to accept and bid on work on which, previously, they were unable to compete. The versatility, speed and outstanding net production figures of this press make it a profitable investment to think about RIGHT NOW!

Cottrell

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WESTERLY, RHODE ISLAND

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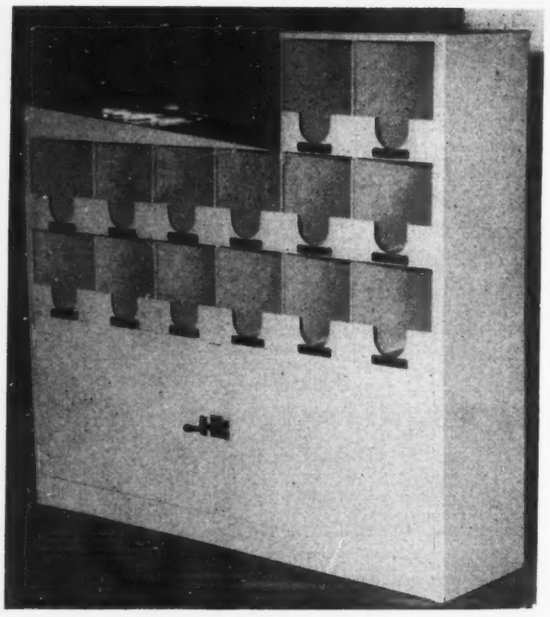
Chicago: Daily News Bldg., 400 W. Madison St.
Smyth-Horne, Ltd., 13 Bedford Row, London W.C. 1, Eng.



Handling of proofs is simplified in composing room of Roanoke (Va.) *Times* and *World-News*. Proof "housekeeping" is orderly.

Cabinet

Simplifies Handling Proofs

IN THE plant of the Roanoke (Va.) *Times* and *World-News*, Composing Room Supt. S. K. Trunnell designed and has had made a proofreaders' cabinet. In the cabinet is furnished a method of keeping proofs and copy in orderly manner on the morning and evening papers published from the same plant.

The cabinet compartments are open-ended—that is copy from any compartment can be extracted by the proofreader from either side of the cabinet. Thus, both sides are identical. The cabinet is positioned on the floor midway between two parallel rows of proofreaders' desks.

Width of the cabinet is 60 in.; depth is 14 in.; height to top is 54 in. Construction is of sheet steel enameled Horizon Gray.

Aside from the good housekeeping qualities of this cabinet, there is included a novel feature which is sure to appeal to every composing room executive, including the head proofreader. The occasional guy who "likes to work the hook" cannot do so where this cabinet is in use.

On the inclined upper-left surface of the cabinet a flat steel bar is hinged at the right. The hinge bearing is slotted to allow the bar to adjust itself to a long row of rolled up proofs. This bar resembles a ski in shape but its purpose is different. The proof press operator rolls up galley proofs and copy and places them under the flat bar in order. The proofreaders, however, must take the first roll of proofs from the end of the row of proofs nearest the bar hinge.

In this plant, the *Times* is the morning and Sunday paper and the *World-News* is the evening paper. The bottom row of compartments is allotted to the *World-News* copy and the upper row and one of extreme top are allotted to the *Times*—the extra compartment is for time copy. Each compartment is labeled for a day of the week and copy is filed according to the day it runs and not the day it is proofread. Each compartment measures 9½ in. wide, by 14 in. deep, by 12 in. high. Each compartment is emptied on its particular day when the paper is put to bed.

One of the two extreme upper compartments is used for time copy.

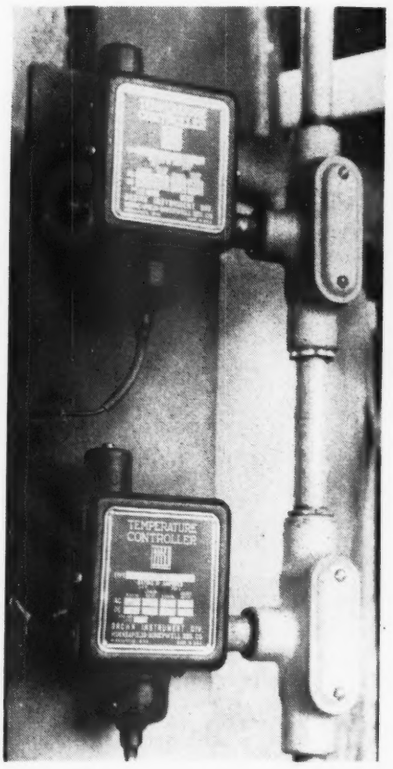
The locker at the lower part of the cabinet is used for 30-day storage of proofs, any of which might have to be referred to from time to time.

Stereotype Pot Danger Signal

IN the stereotype department of the Springfield (O.) *Sun* and *News*, two large metal melting pots are kept going night and day, seven days a week. To assure temperature maintenance and to prevent possible danger should there be a mechanical error somewhere, a system of automatic temperature control with a hooked-in danger signal has been installed, reports Frank Otstot, Stereotype Superintendent.

The heart of the system for each pot consists of two temperature controllers made by the Brown Instrument Div., Minneapolis-Honeywell Regulator Co. On each of the two melting furnaces there is mounted two of these temperature controllers—one to govern the maximum and the other the minimum temperature. These operate by means of a solenoid switch. The temperature controller for the maximum temperature goes off when the high temperature has been reached while the controller for the minimum temperature goes on, both automatically, when the temperature in the melting pot has dropped to that temperature. Thus, these two controllers maintain the required temperature at all times in the melting pots of the two furnaces. Two of these controllers are used with each furnace.

The other part of this system consists of a Klaxon signal device. If for any mechanical failure in the fires of the two furnaces whereby the heat applied would either fail to go off when the maximum temperature had been reached or would fail to go on when the minimum temperature has been reached, the Klaxon sounds a shrill signal that can be heard over the plant—even in the offices on the ground floor. This Klaxon is hooked up with the two sets of temperature controllers and works automatically when the allowable differential has been reached. This differential could be any predetermined variation. In the Springfield plant it is 50 deg. above or 50 deg. below the maximum and minimum temperatures for which the controllers are set to operate. Thus if through some mechanical failure of the firing apparatus in either or both of the furnaces, the temperature in either or both dropped 50 deg. below the minimum and 50 deg. above the maximum for which the controllers were set, the Klaxon would sound a signal.



Two temperature controllers on stereotype metal melting pot at Springfield (O.) *News* and *Sun*. The instruments govern maximum and minimum standby temperatures. Should temperatures of metal exceed points for which they have been set, a Klaxon signal device sets up hearty protest. Klaxon can be heard in any part of the building.

That is a signal that there has been a failure in the firing of the melting pots and calls for instant attention. If there is no one in the stereotyping department the fact that the Klaxon signal can be heard in all parts of the plant assures that someone will immediately respond to see that the trouble is remedied.

LINOTYPE'S THERMO-BLO

means better printing faces

STEADY hour-after-hour production . . . the kind that Linotype owners have learned to expect . . . is doubly assured when the Linotype Thermo-Blo unit is on the job. Overheating of molds, especially when continuously casting larger slug sizes, is reduced greatly.

Thermo-Blo directs a controlled flood of air on the mold, helping to produce solid, close-grained slugs with improved printing faces. This controlled volume of air is restricted to the length of the mold. No cooling action on the mouthpiece . . . no draft to annoy the operator.

Thermo-Blo is available when ordering new Linotypes as an added production aid at extra cost, and it can be applied to outstanding Linotypes if equipped with Universal Ejector.

And like many other Linotype features, Thermo-Blo helps keep your Linotype production capacity and quality high. Ask your Linotype Representative about it.

LINOTYPE

Set in members of Linotype Spartan Family and Gothic No. 13

MERGENTHALER LINOTYPE COMPANY

29 Ryerson Street, Brooklyn 5, N.Y.

EXECUTIVE ¶s

Seward T. Salvage, T. F. Rose and H. C. Telford have received promotions with The Timken Roller Bearing Co. according to a recent announcement. Salvage, formerly Assistant District Manager of Industrial Bearing Sales in the Cleveland office, has been named Sales Promotion Manager. He has been associated with Timken for over 15 years, serving in various selling capacities in Pittsburgh, Houston and Los Angeles. Rose, Cincinnati branch manager, has become manager of Timken Roller Bearing Service and Sales Ltd., Toronto, Ontario. He succeeds C. E. Webster, who recently passed away, in fulfilling this position at the Canadian subsidiary. Rose has been with the Timken organization since 1924 and worked at both the Chicago and Pittsburgh offices. H. C. Telford, assistant manager of the Atlanta branch, becomes the new Cincinnati manager. He joined the Atlanta staff in 1928 and has represented Timken in the sales field since 1936.

Ren R. Perry, Western District Manager for Harris-Seybold Co., has announced district organization changes affecting C. A. Loefgren (left), Metropolitan Representative in Chicago, and J. G. Willis (right), Twin Cities Branch Manager in Minneapolis. Loefgren will supervise sales representatives' activities in Chicago and surrounding territory, and Willis will supervise selling operations in the Graphic Arts centers of St. Louis and Kansas City, as well as in the Twin Cities area.

Mary McClung, General Manager of the New York *Post Home News*, announced the appointment of Arthur Weiss as Mechanical Superintendent in charge of production operations. Mr. Weiss succeeds Edmund Goodrich, who resigned to become owner and publisher of a Trenton, N. J. newspaper. Mr. Weiss has been with the *Post Home News* for 30 years. He started as a compositor in 1919, upon returning from overseas in the First World War, and has since served the paper successively as day foreman and general foreman.

The appointment of Robert W. Knappage as District Sales Representative for the Imperial Type Metal Co. was announced recently. Knappage has established his residence at 5724 E. Claridge Circle, Apt. D, Dallas 9, Tex., and will cover the Texas-Oklahoma-New Mexico district. He has represented Imperial in Northern Ohio for the past three years. A veteran of World War II, he served with the Army in the European Theatre of Operations. Knappage is succeeded as Imperial representative in Northern Ohio by Roy C. Kuhns. Kuhns attended Western Reserve University and is a veteran of World War II. His Cleveland address is 1276 West Third St.

H. R. Callahan (right) of Paisley Products, Inc., was presented with a lighter when Graphic Arts Spray Manufacturers, a group of New York Employing Printers Assn. members met recently. James E. Kendrick, secretary, presented the gift in appreciation of Callahan's services as chairman of the GASM.

Frank A. White has been appointed sales representative of the Goss Printing Press Co. according to an announcement by C. S. Reilly, Vice President and Sales Manager. In his new capacity, White will be located in Augusta, Ga., representing Goss in the Southeast territory covering the states of Tenn., N. C., S. C., Ga., Ala. and Fla. A graduate of Georgia Tech in 1933 with a mechanical engineering degree, he started with the Goss organization the same year in the production department, where he has since been employed.

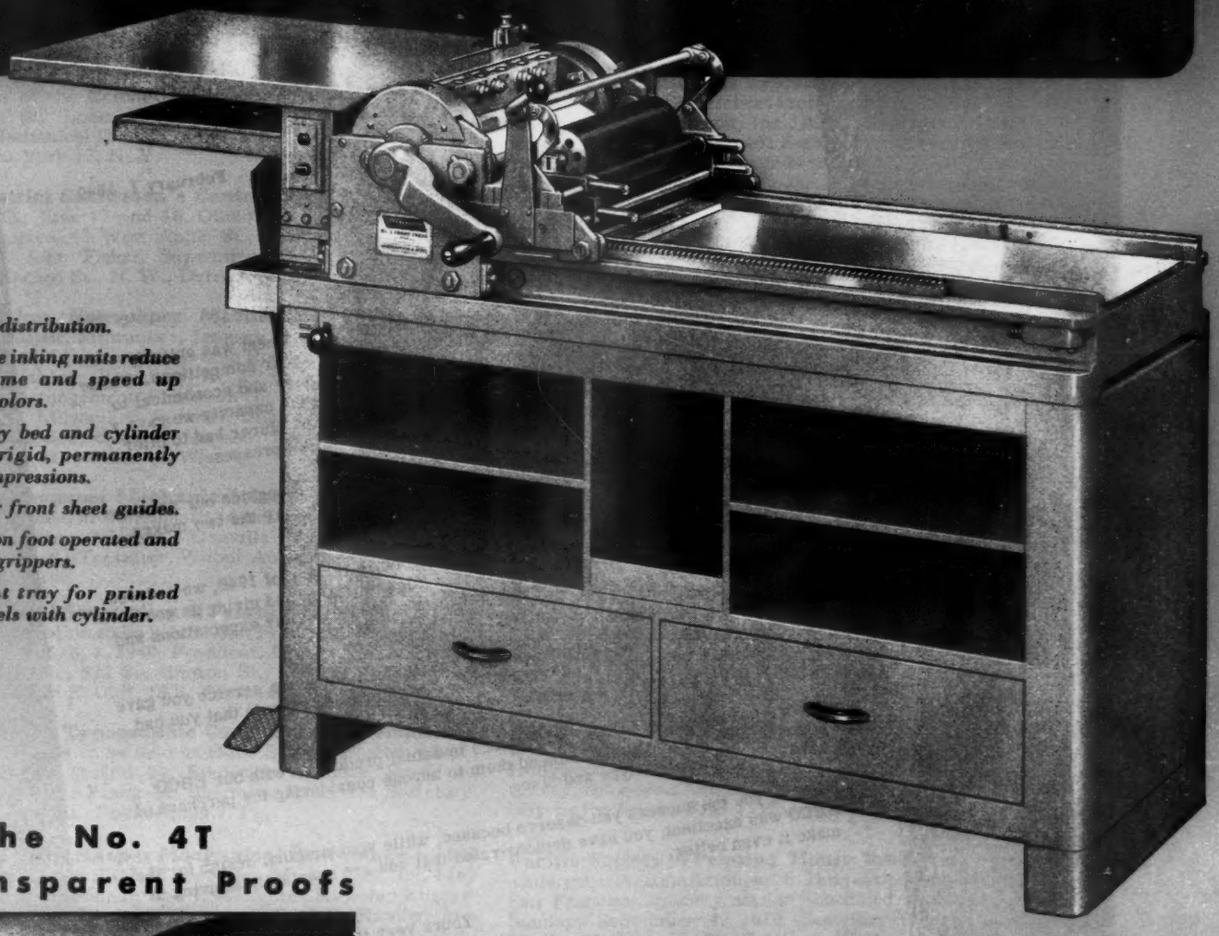
Frank A. White, appointed sales representative of the Goss Printing Press Co.

The selection of John H. Doesburg, jr., as Secretary and General Counsel of the Master Printers Section of Printing Industry of America, Inc., was announced recently by James J. Rudisill, MPS President. Doesburg, a Northwestern University graduate, is a member of the bar and a practicing attorney, besides being trained in printing. He was employed by R. R. Donnelley and Sons Co. as an attorney in 1935. After employment, he went to the Donnelley training school to learn the principles of typesetting, presswork and binding. He served in the Navy during World War II as Lieutenant Commander. In 1947, Doesburg was appointed Secretary and Attorney for the Donnelley concern.

John H. Doesburg, jr., Secy. and General Counsel of Master Printers Section of PIA.

Everett B. Hall of Miami, Fla., was named Pressroom Foreman at the Dayton (O.) *Daily News* on February 25. He succeeds Louis A. Brod who retired after 30 years at the *News*. Hall entered the trade as an apprentice 26 years ago, spending the last 11½ years on the Miami *Daily News*. He began his career on the Des Moines *Register and Tribune* and later went to the Chicago *Herald Examiner*. He has worked on color newspaper printing during most of this time. In Miami, Hall was chapel chairman of the pressroom union for eight years and was on the Executive Board of the Printing Pressmen's Local 207. His father, L. F. Hall, has been a pressman nearly 50 years in Des Moines and still is active on the *Register and Tribune* at the age of 76. G. F. Hall, brother of Everett, also is on the Des Moines daily where he has been a pressman for 26 years. Brod, who came to the Dayton (O.) *Daily News* in 1919 and supervised work on four different types of presses during his 30 years, is a pressman in his own right. In 1919, the *News* was printed on a Goss Sextuple Straight Line and a Goss High Speed Straight Line. In 1923, a Hoe Unit-Type Super Speed press was installed. It printed the *News* until 1948 when the current Scott Extra-High-Speed Straight Unit presses were installed. A native of Dayton, O., Brod learned his trade there 57 years ago in commercial shops. He also was a newspaper boy for the Dayton *Monitor*, predecessor to the *News*, in the late 1880's. Between the time he learned his trade and returned to the *News* in 1919, he was a pressman in New York, Boston; Sydney and Melbourne, Australia; Chicago, Detroit, Cleveland, Indianapolis and Springfield, O.

Choose THE No. 4* VANDERCOOK PROOF PRESS FOR THE FINEST REPRODUCTION PROOFS



- *Power ink distribution.*
- *Changeable inking units reduce washup time and speed up changing colors.*
- *Extra heavy bed and cylinder to insure rigid, permanently accurate impressions.*
- *Micrometer front sheet guides.*
- *Combination foot operated and automatic grippers.*
- *Convenient tray for printed sheets, travels with cylinder.*

Or . . . the No. 4T for Transparent Proofs

This is the machine widely preferred by typesetters, offset lithographers, gravure plants and others for making top quality reproduction proofs. Or, they choose the No. 4T Vandercook for proving two sides of transparent material like cellophane or glassine. Both machines represent a wise investment—one that will pay immediate dividends in production, improved quality, increased efficiency, and lower operating costs.

VANDERCOOK PRE-PRESS SYSTEM

**One of 12 Vandercook Proof Presses sold exclusively by American Type Founders*

Ten other Vandercook Proof Presses sold only by Vandercook & Sons, Inc.

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ATF Associate

Manufacturers of: Kelly Presses, Little Giant Presses, Chief Offset Presses, Web Offset Presses, Gravure Presses, Foundry Type and Process Cameras

Distributors of: Vandercook Proof Presses, Composing Room, Pressroom and Bindery Equipment

READ THIS...and let experience be your guide

New England Blue Print Paper Co.

Springfield, 3 — Massachusetts

78 Hillman Street

February 1, 1949

Electric Boat Company
Groton, Connecticut

Gentlemen:

For twelve years prior to 1948 our offset printing department was entirely equipped with printing presses manufactured by one of your competitors. These machines gave us very good service and were satisfactory and economical to operate, so when, in 1947, we decided to expand our press capacity we gave a great amount of careful consideration to what this manufacturer had to offer before deciding to install one of your EBCO 22 x 34 offset presses.

The EBCO was installed early in 1948 and was operated alongside our previous machines, so that we had an excellent opportunity to compare the two makes doing the same type of work under the same conditions.

The performance of the EBCO was such that, before the end of 1948, we ordered our second machine from you. It is now in full production and giving as good service as the first one. Both machines have proved up to our expectations and your promises.

We wish to take this opportunity to thank you also for the extra service you gave us in recently installing on our first EBCO several improvements that you had made in design since it was purchased by us.

We are very pleased with our experience in actual production with our EBCO presses, and can highly recommend them to anyone considering the purchase of an offset press of this type and size.

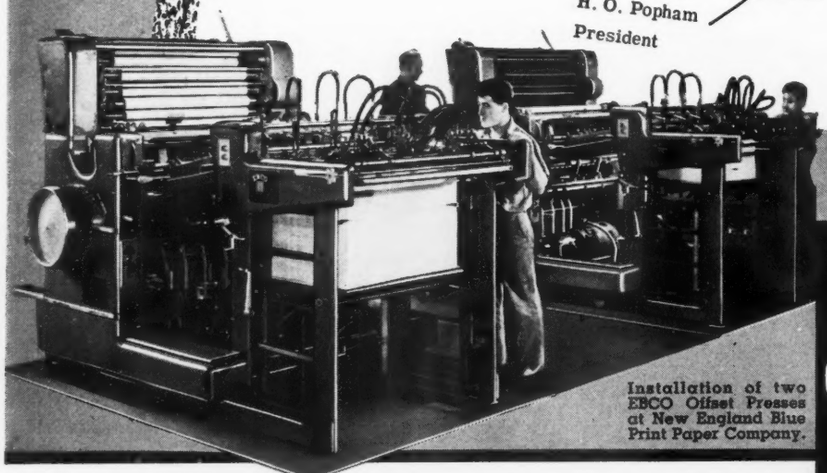
Wishing you the success you deserve because, while your original design for the EBCO was excellent, you have demonstrated that you are constantly striving to make it even better.

Yours very truly,

NEW ENGLAND BLUE PRINT PAPER CO.

H. O. Popham

H. O. Popham
President



Installation of two EBCO Offset Presses at New England Blue Print Paper Company.

EBCO OFFSET PRESS

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Conference Dates (*with organization names and principal officers*)

American Photoengravers Association — 1949 Convention and Exhibition, Fairmont Hotel, Nob Hill, San Francisco, September 12, 13, 14. Frank J. Schreiber, Commissioner, 166 W. Van Buren St., Chicago 4, Ill.

ANPA Mechanical Conference—Palmer House, Chicago, Monday, Tuesday and Wednesday, June 6, 7 and 8, 1949. Chairman of the Committee, Edwin H. Evers, Production Manager, St. Louis *Globe-Democrat*. Acting Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftsmen's Conference—Hotel Biltmore, Dayton, O., June 17 and 18. Ollie G. Fricke, Fifth District Representative, 43 West Apple St., Dayton, O.; Secretary-Treasurer, John Fisher, Superintendent, Reardon-Parshall Co., 466 Larned St., N. W., Detroit, Mich.

Great Lakes Newspaper Mechanical Conference—Hotel Schroeder, Milwaukee, January 15, 16, 17, 1950. President W. R. Coddington, Composing Room Supt., Youngstown (O.) *Vindicator;* Secretary Al. P. Oberg, Flint (Mich.) *Journal;* Arrangement Chairman J. E. McMullen, Pressroom Supt., Milwaukee *Journal;* Chairman Mfrs. and Suppliers Committee, George Morrison, Morrison Co., 125 W. Melvina St., Milwaukee 12, Wis.

Illinois Newspaper Mechanical Conference —1949 conference to be held in Danville, Ill., dates to be announced later. President, John Orlebeke, Danville (Ill.) *Commercial-News;* Secretary-Treasurer, Wilbur Augspurger, Peoria (Ill.) Newspapers, Inc.

International Association of Printing House Craftsmen —1949 Convention to be held in San Francisco, Palace Hotel, September 4, 5, 6, 7, 1949. President, Gradie Oakes, Process Color Plate Co., 522 So. Clinton St., Chicago 7. Executive Secretary, Pearl E. Oldt, 18 E. Fourth St., Cincinnati 2, Ohio.

International Typographic Composition Association—1949 Convention to be held at Hotel Statler, Boston, Mass., September 22, 23 and 24. Frederick H. Lutz, President, Brockton, Mass.; Frank M. Sherman, Executive Secretary, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference— 1949 Conference, Hotel Hanford McNider, Mason City, Ia., May 14, 15 and 16. President, Ken I. Waughtel, Kayenay Engraving Co., Mason City, Ia.; Secretary, Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald*.

Kansas Newspaper Mechanical Conference — 1949 meeting to be held at Hotel Kansan, Topeka, Kan., October 1 and 2. President Vern Williams, Mechanical Supt., Topeka Newspaper Printing Co., Topeka, Kan.

Lithographers National Association — 1949 Convention to be held at Mission Inn, Riverside, Calif., May 10 to May 13. W. Floyd Maxwell, Executive Director, 420 Lexington Ave., New York 17, N. Y.

Missouri Newspaper Mechanical Conference — 1949 Conference, Hotel Conner, Joplin, Mo., September 10 and 11. President, Paul S. Ginn, Press Foreman, Sedalia (Mo.) *Democrat-Capital;* Secretary-Treasurer, O. K. Hammitt, Mechanical Supt., Moberly (Mo.) *Monitor-Index;* Chairman of Supply Men's Committee, Robert Robinson, Representative, Certified Dry Mat Corp., 9 Rockefeller Plaza, New York 20, N. Y.

National Association of Litho Clubs — Mayflower Hotel, Washington, D. C., April 29-30, 1949. President, Albert Tucker, Sauls Lithograph Co., Washington, D. C.; Secretary William J. Stevens, 317 West 45th St., New York 19, N. Y.

National Association of Photo Lithographers — 1949 convention will be held at Hotel Statler, New York, N. Y., October 19, 20, 21 and 22. Executive Vice President, Walter E. Soderstrom. 317 West 45th St., New York 19, N. Y.; Executive Secretary, William J. Stevens, 317 West 45th St., New York 19, N. Y.

National Graphic Arts Education Association — 24th Annual Conference on Printing Education, Pressmen's Home, Tenn., June 20-23, 1949. John G. Henderson, President; Fred J. Hartman, Educational Director, 719 Fifteenth St., N. W., Washington 5, D. C.

National Graphic Arts Exposition—International Amphitheatre, Chicago, September 11 to September 23, 1950. National Graphic Arts Exposition, Inc., A. E. Giegengack, President. Fred W. Hoch, Secretary, 461 Eighth Ave., New York 1, N. Y. During the period, September 24 to October 7, 1950, a number of Graphic Arts associations will hold their annual conventions as follows: Intl. Assoc. of Printing House Craftsmen, Hotel Stevens, Sept. 10, 11, 12 and 13, 1950; Intl. Typographic Composition Assoc., Sheraton Hotel, Sept. 14, 15 and 16; Printing Industry of America, Palmer House, Sept. 17, 18, 19 and 20, 1950; National Graphic Arts Education Assoc., Hotel Sherman, Sept.. 21, 22 and 23, 1950.

National Printing Equipment Association, Inc. — President, R. Verne Mitchell, Harris-Seybold Co., 4510 E. 71st St., Cleveland 5, O. James E. Bennet, Secretary, 140 Nassau St., New York 7, N. Y.

New England Mechanical Conference — 1949 Conference, Hotel Statler, Boston, Mass., October 29 and 30. President, George F. Marshall, Mechanical Supt., Portland (Me.) *Press-Herald-Express*. Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day*.

Northwest Mechanical Conference — Hotel Radisson, Minneapolis, Minn., February 12, 13, 14, 1949. President, Chas. R. McGuire, Mechanical Supt., Minneapolis (Minn.) *Star* and *Tribune;* Secretary-Treasurer, Vernon G. Eck, 3725 Forth-eighth Ave., So., Minneapolis 6, Minn.

Pacific Mechanical Conference — Roosevelt Hotel, Hollywood, Calif., May 20, 21, 22, 1949. President, Harold Winn, Hollywood *Citizen-News;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles, *Daily News*.

Pacific Society of Printing House Craftsmen — Annual conference in connection with International convention at San Francisco. Society session scheduled for Palace Hotel, Sunday, September 4, 1949. Secretary-Treasurer, R. W. Hardy, 71 Columbia St., Seattle 4, Wash.

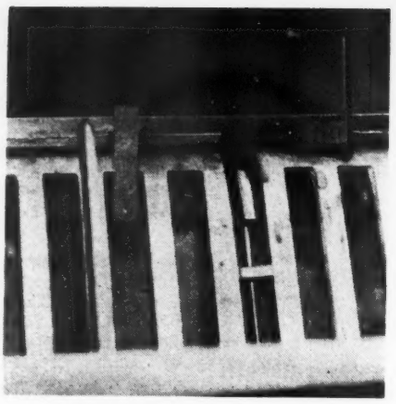
PNPA-NJPA Joint Mechanical Conference — Penn Harris Hotel, Harrisburg, Pa., April 1 and 2, 1949. Paul V. Driscoll, Mechanical Supt., Connellsville (Pa.) *Courier*, Chairman of the PNPA Mechanical Committee is in charge of the arrangements. Thus the states of Pennsylvania and New Jersey will be represented by one conference; executives from Delaware and Maryland (which states have no conference) are also invited to participate in the joint meeting in Harrisburg.

Printing Industry of America — Hotel Biltmore, Los Angeles, November 14-17, 1949. James R. Brackett, General Manager, 719 Fifteenth St. N. W., Washington, D. C.

SNPA (Eastern Div.) Mechanical Conference — Atlanta Biltmore Hotel, Atlanta, Ga., August 29 and 30, 1949. Chairman, Luther Wright, Mechanical Supt., New Orleans (La.) *Item;* Secretary, Tom Tanner, c-o SNPA, P.O. Box 1569, Chattanooga 1, Tenn.; Chairman of Supply and Equipment Group, Owen W. Asbell, Ludlow Typograph Co., representative in Atlanta, Ga.

SNPA (Western Div.) Mechanical Conference—Chairman, George N. Guthrie, Pressroom Supt., Little Rock (Ark.) *Gazette;* Secretary, C. W. Tabb, 723 Texas Bank Bldg., Dallas, Tex. 1950 Conference dates and meeting place to be determined later by Executive Committee.

Prevents Paper Striking Back of Delivery Bed on Kluge

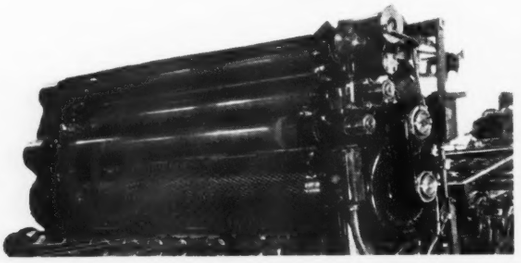


WHEN printing smaller sheets on a Kluge it occasionally happens that in delivering the sheets to the delivery bed, they strike the top of the bed back frame and do not fall properly into position on the bed. Guy C. Patterson, foreman of the printing department of the Rutherford (N. C.) *County News*, devised a simple gadget to make certain each sheet will fall into position on the delivery bed.

The gadget is made in two duplicate parts, each part composed of a piece of wood furniture and a piece of reglet. A piece of 20 pica wood furniture about 3¼ in. long was used and to one end of it there was nailed a 3 in. strip of wood reglet so as to form a capital L, the furniture part of the piece forming the bottom of the L.

In use, the bottom part of the L is passed through one of the openings in the top part of the delivery bed back frame so it will rest on the press itself. When that is done the upright (stem) portion of the L, which is made of the piece of reglet, will extend upward to form a sort of supplementary back prong that extends higher than the delivery bed frame. This is done with both of the L's. The particular frame openings into which they will be put will depend, of course, on the width of the sheet being fed to the press.

Their use is simple. As the sheet comes off of the press and goes to the delivery bed, the two upright portions of the L's form a back stop for the paper if it hits high and thus serves to drop it onto the delivery bed.



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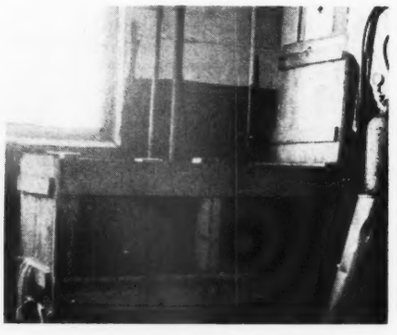
Paper Trimming Box

THE large box, generally mounted on rollers and used for paper trimmings is a familiar accessory in every printing plant. In the printing department of the Shelby (N. C.) *Star*, there is one of these boxes with an innovation. Instead of the usual fixed ends, each end of this paper box is a swinging door hinged at the top. This new kind of paper trimming box is the idea of Gene Dover of the press room.



Not a cabinet maker's work of art, to be sure, this waste paper box used for depositing waste paper trimmings, has hinged doors at either end and is provided with casters. When full, it's rolled endwise against a chute to the basement in the plant of the Shelby (N. C.) *Daily Star*.

When the box is full of paper trimmings it is rolled over to one corner of the room where there is a chute opening. This chute leads to the basement where the waste paper is baled for sale. To empty this improved waste paper box all that is necessary is to swing up one of the swinging doors, roll the box up to the chute and with the aid of a broom push out the paper trimmings into the chute. There is no littering of the floor with paper scrap. A screw eye and hook at the bottom of each swinging door holds it shut until it is desired to open it.

Patents

For The GRAPHIC ARTS

Covering patents issued December 21, December 28, January 4 and January 11.

Binding, Cutting, Perforation

During the four weeks covered by this report, no patents have been issued for this heading.

Composing Room Equipment

2,456,608. TYPE FOR USE IN MAKING A GRAVURE PROOF has a flat printing surface with continuous peripheral walls and a plurality of protuberances of from one one-hundredth to two one-hundredths of an inch in width distributed through the area bounded by the walls. The protuberances are separated from adjacent protuberances by narrow grooves having sharpened ends which terminate close to the peripheral walls. The flat printing surface and protuberances are adapted to carry ink which the grooves are free from ink. Invented by Harley C. Alger, Chicago, Ill. Unassigned. Application October 24, 1942. 2 claims.

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

2,458,204. MOVABLE MULTIPLE MAGAZINE UNIT or attachment for use with a standard typesetting machine makes it possible to optionally use thirty-two faces of type instead of the usual ten. Even more than thirty-two can be used, as the type magazines can be readily changed. The attachment, briefly, consists of a pair of discs which carry radially aligned slots in which each set of slots carries a type font. The discs, forming a drum-shaped unit, are attached at the central hub part to an arm which curves downwardly to be bolted to the base of an ordinary typesetting machine. A crank arm is passed through the hub part of the discs so that the disc unit may be easily turned by hand to bring the desired type font into registry with the typesetting machine. Invented by Charles J. Romyns, Lynbrook, N. Y. Application March 14, 1947. 2 claims.

Feeding, Folding, and Delivery

During the four weeks covered by this report, no patents have been issued for this heading.

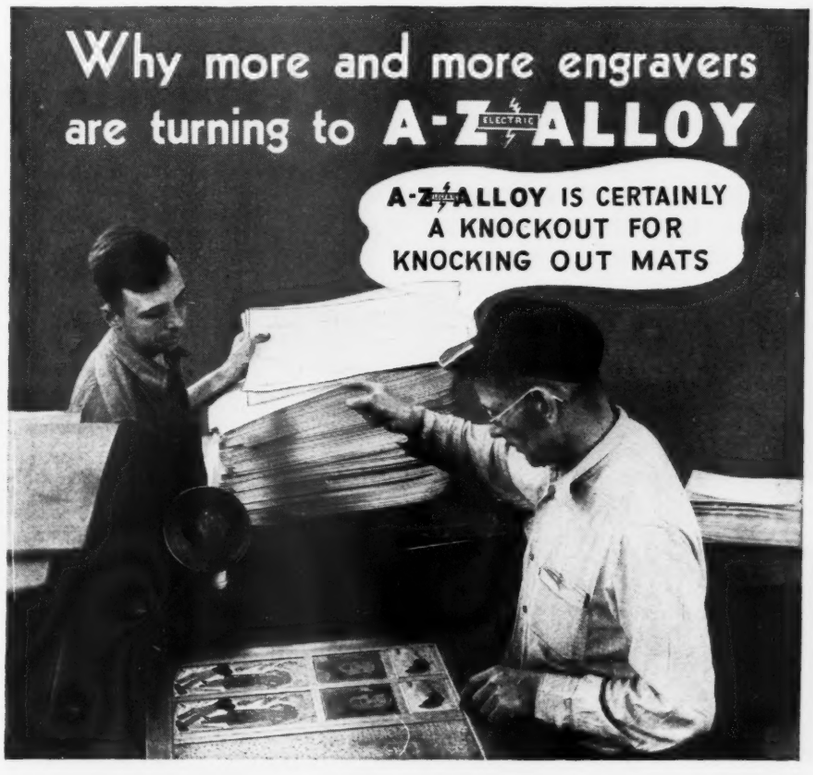
Miscellaneous

2,457,113. THE SCANNING UNIT disclosed may be used for supervising the side travel or register in web or strip handling machinery, for indicating, separating or counting articles. Invention provides a self-contained unitary mounting block which defines the optical axis of the broken light beam, and houses the light-receiving element such as a photoelectric cell whose alignment is not critical, whereas the element whose alignment is critical, namely, the light source, is mounted on a platform which is movable relative to the optical system for the unreflected or illuminating beam, axially for focusing, as well as transversely for adjustment in a plane intersecting the axis of that system. Various adjustment movements, and the fixation of such adjustment, are taken care of by screws which point toward, and are manipulated within a comparatively small space at the most accessible region of the unit. Invented by Milton Alden, Brockton, Mass. Unassigned. Application June 26, 1945. 5 claims.

2,458,981. METHOD OF ELIMINATING OFFSET. A method is disclosed of facilitating printing press work positioning and removal and for eliminating the effects of static electricity on printed work. The method consists in applying to the draw sheet of a printing press platen a mixture of oil such as a lubricating oil No. 20 (SAE rating) and finely divided soapstone. Proportions of the two ingredients may vary from about one-half pound to two pounds of powdered soapstone to one quart of oil. Invented by Charles B. Cotherman, Goshen, Indiana. Unassigned. Application October 1, 1945. 4 claims.

Plate Making

2,457,282. MATRIX DRYING AND ROASTING MACHINE includes a pair of side members having bearings which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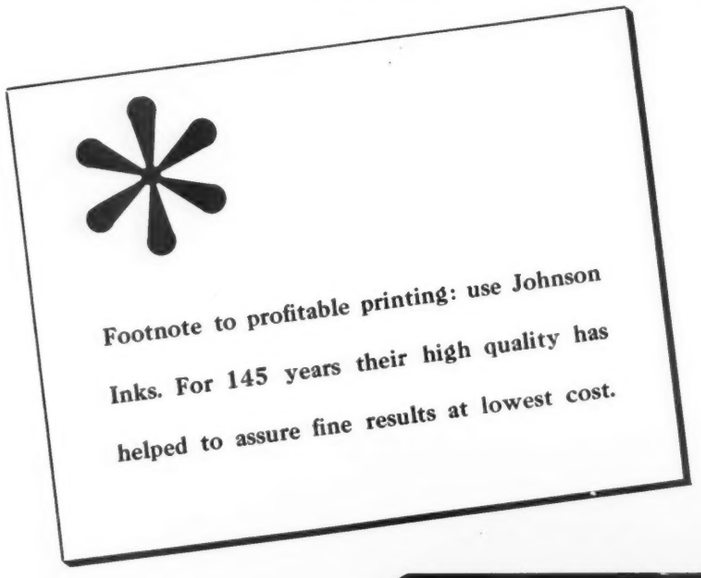
rotatably support a hollow cylindrical roller having heating coils therein and a spring tensioned roller journalled between the side members. Bearing in one of the end plates of the heated roller is hollow and a thermal control unit is positioned in it. A ring is fixed to the other end plate of the roller and a pinion, carried by a crank handle in one of the side members, engages ring gear to rotate roller at reduced speed. The end of an asbestos blanket around spring tensioned roller is secured to heated roller and as crank is turned blanket is unwound from spring tensioned roller onto the heated roller. A matrix can be inserted between secured end of blanket and heated roller to be thereby heated and roasted as roller revolves. Invented by Oscar R. Simmons, Topeka, Kansas. Unassigned. Application June 19, 1947. 3 claims.

2,457,452, and 2,457,453. CLAMP AND MULTIPLE CLAMP FOR LITHOGRAPHIC PLATE GRAINING MACHINE. The clamp of 2,457,452, for securing lithographic plates of zinc, copper, or aluminum in a graining machine, uses a spring pressed foot which, during operation of the machine, bears resiliently upon the margins of the lithographic plate being treated, either directly or through the medium of a flat hold-down strip. Spring pressure is released and the pressure foot raised, by means of a novel manually actuated lifting cam, for replacement of the plates between graining operations. The arrangement of 2,457,453 provides for simultaneously clamping a number of plates in a machine. A number of spring pressed hold-down feet are arranged in rows across the grainer tub and in alignment with the clamp supporting cross bars which span the tub at spaced intervals. The clamping feet associated with one of the cross bars are all connected with an elongated actuating bar or frame which is placed for limited vertical movement near the cross bar. Manually operated levers raise and lower the clamp supporting frames in order to release and apply the several clamps to the plates. Thus several clamps may be released and applied by the manipulation of one or two levers. Invented by Martin G. Dunn, Washington, D. C. Unassigned. Applications December 3, 1946 and January 6, 1947, respectively. 5 and 10 claims, respectively.

2,458,108. GRAINING APPARATUS for producing a grained surface on printing plates for use in "offset" presses includes a tank along the bottom of which plates to be grained are clamped. The graining container, containing graining marbles together with sand and water, is mounted on a subframe. A rapid vibratory pulsating movement is imparted to the graining container in contradistinction to the gyrating or circular movement usually imparted in apparatus heretofore used. This pulsation causes graining particles to move over the surface of plate in such a manner as to quickly produce a greatly improved grain surface. Movement is caused by electromagnetic vibrators attached to graining container. Invented by John M. Simpson, Brooklyn, N. Y. Unassigned. Application March 25, 1946. 6 claims.

2,458,269. REPRODUCING CAMERA. Color or black and white copy can be reproduced in all sizes, from minute reductions to enlargements of great size. The device is so suspended from the ceiling that the elements will be maintained in their various adjustments in spite of vibrations caused by printing presses, etc. The suspending apparatus includes an overhead guide and a lower guide along which upper and lower carriages are adjustable. Cooperating lens, copy and sensitized paper carrying frames are located between the upper and lower carriages. A pivot on each upper carriage permits one of the frames to move through 180 degrees while under the influence of a tensioning device associated with the carriages. Thus the frames may be rotated in face-to-face, face-to-back and back-to-back positions so that copy, lens and sensitized paper may be supported in positions which will enable extreme reduction or enlargement of images. Invented by William C. Huebner, New York, N. Y. Unassigned. Application October 8, 1945. 2 claims.

2,458,827. PRINTING AND LITHOGRAPHIC PLATES may be surfaced with lead-tin-antimony alloys with the improved electroplating bath and method of codeposition of metals of this patent. The method is carried out by passing current between a cathode and an anode consisting of a minor portion of tin and a major portion of lead through an electrolyte consisting essentially of a lead fluorborate, tin fluoborate and a compound selected from the group consisting of antimony trioxide and antimony fluoborate, maintaining a tin concentration of 5 to 200 grams per liter and a lead concentration of 5 to 200 grams per liter by corrosion of the anode and an antimony concentration of 0.1 gram per liter to saturation by periodic addition of a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soluble compound to the bath. Such compound may be antimony fluoborate or antimony trioxide. The method is also applicable to bearings. Invented by James M. Boe, Indianapolis, Ind. Assigned to P. R. Mallory & Co., Inc., Indianapolis, Ind. Application May 10, 1946. 5 claims.

2,459,129. PRODUCTION OF PHOTOGRAPHIC STENCILS. Invention relates to a type of stencils where a photographic relief image is formed in a layer coated on a support which is usually metal and can subsequently be used for photolithographic printing. A method is disclosed of producing a stencil in an element comprising a support, a first phenolformaldehyde layer carried thereby, and a second light sensitive bichromated glue layer superimposed thereon. Method comprises the light printing of an image in the second layer and transformation of the light image to a hardened relief image. It is characterized by the treatment of the said element, after formation of the said relief image, with an etching bath of 90 percent lactic acid and 10 percent ethyl acetate that etches any unhardened portions of the outermost layer and also the portions of the first layer exposed through the relief image. Invented by Donald Charles Gresham and Erich Eduard Loening, Harrow, England. Assigned to Eastman Kodak Co., Rochester, N. Y. Application November 30, 1944, in Great Britain December 9, 1943. 2 claims.

Printing Inks and Related Chemicals

2,456,824. OIL-SOLUBLE DRIER METAL SALT COMPOSITIONS are useful in connection with paint and varnish driers, bodying agents, catalysts, lubricant additives, etc. Alkyl acid phosphates are said to greatly reduce the viscosity of solutions of oil-soluble metal salts and to improve the stability and solubility of these solutions. Invented by Alfred Fischer, Bronx, N. Y. Assigned Nuodex Products Co., Inc., Elizabeth, N. J. Application July 10, 1946. 6 claims.

2,457,224. PREPARATION OF POLYDIOXOLANE. A process disclosed comprises making high molecular weight homopolymers of 1,3-dioxolane by contacting 1,3-dioxolane below room temperature in the presence of less than 0.01 percent of boron fluoride. Various other catalysts may be used. Products claimed include a saturated homopolymer of 1,3-dioxolane fiber exhibiting molecular orientation parallel to its axis; crystalline homopolymers of 1,3-dioxolane, and a saturated homopolymer of 1,3-dioxolane containing the chemical group $(-CH_2OCH_2CH_2O-)$ in which x is at least 10. The compounds prepared in accordance with the invention may be employed for an exceptionally large number of uses, for example, with pigments and paints. They are useful as a protective film and dispersing agent and solvent in printing oils and as softeners in printing inks, paper coatings, creaseproofing of paper, etc. Invented by William F. Gresham, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application July 3, 1945. 9 claims.

Printing Presses and Equipment

2,457,113. SCANNING UNIT. See description of this invention under "Miscellaneous" heading.

2,458,773. SCREEN PRINTING MACHINE is particularly adapted to multiple color screen printing. A series of screen printing frames are automatically moved in sequence between a retracted, stacked position and an extended, printing position in a manner to avoid smearing the design freshly printed on the material. The screens are stacked in an elevator when not employed in a printing operation. Elevator is movable to bring the frames in sequence into alignment with an ejecting and retracting mechanism. Operation of this mechanism is prevented unless frames are in desired position. Machine can be employed in printing either blanks, such as towels, or bolts

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

Little experience is required in operating the machine. The squeegee may be operated manually. Invented by Robert F. Foard, Los Angeles, Calif. Unassigned. Application February 18, 1946. 18 claims.

2,458,981. METHOD OF ELIMINATING OFFSET. See description of this invention under "Miscellaneous" heading.

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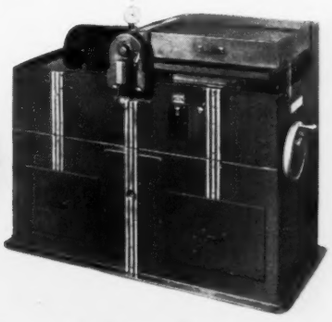

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Northwest Conference

(Continued from Page 32)

newspaper presses for the drying equipment.

Moisture-set inks have the same advantages as the heat-drying ones, the speaker said, and offer no fire hazard, but the price is four to six times that of news ink and extra press equipment is required. Experimental work is now going on to adapt this type of ink to high-speed newspaper work, the clinic was told.

Water-base gravure and aniline inks are also being studied for possible application to the newspaper field, the speaker said, but the price is still a handicap. Also under study is a new type of filtration ink which has come into considerable favor for job shop work. Since it does not behave the same on various papers, a joint program of research is being carried on by ink and paper manufacturers, he revealed.

Mr. Watson raised the question of whether newsprint might not be altered to accommodate better inks rather than to try to make the ink fit the paper. The answer to the perfect drying news ink, he said, will probably be found in some redesigning of newsprint.

Discussing other developments in the newspaper field which originated in the Graphic Arts field rather than in the ink industry, Mr. Watson told of the introduction into the St. Louis *Post-Dispatch* of rotogravure printing of comic supplements. He also told of the Huebner process by which the ink is caused to transfer from plate to paper by electrostatic means.

Also described by Mr. Watson was the Xerographic process recently announced by Battelle Memorial Institute in which the printing image on a plane surface is electrically charged, a powder applied to the image and by means of a corona discharge behind the web, the powder is transferred to and fused on the paper.

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Best Molding Combination

MR. TIGHE, the next speaker, discussed *Mat Molding—What is the Best Molding Combination?* That question, he said, is considered dynamite by speakers because it is really double-talk and never fails to stir up heated controversy. It would not be a dangerous question, he added, if it were framed this way: "What is the best molding combination for me to use when I have a Hoe Monarch No. 2 slip-clutch roller with semi-hard packing in the pressroom?" In that case, he explained, it would be possible to tell the man who asked the question what would be a very good combination. The trouble with the question, he said, is that if the press packing be varied or the roller consist of one of the many forms of gear-driven upper rollers and beds, then many answers are possible. These variables in equipment account for the different types of cushions in use.

Generally speaking, soft cushions are best for space depth and hard cushions for bowl depth, he said, but it must not be assumed that because a molding combination does not work satisfactorily in one plant that it will not work in another where plant conditions are different.

In direct pressure equipment there are the new, powerful large hydraulic ram machines, available with or without heat and vacuum and equipped with manual or automatic controls and also many of the older models with small diameter rams and some toggle presses, the clinic was told.

Modern presses are distinguished by their powerful build and by the way the upper roller is actuated, and by their speed, Mr. Tighe pointed out. To modernize the older machines with the upper roller driven from a flat gear, he said, the shaft key can be pulled to make the roller free wheeling.

The speaker here gave the results of tests made to show, first, the variation in shrinkage due to variations in molding equipment, and second, the variation in shrinkage due to variations in molding combinations.

Using a Duplex roller, Mat A was rolled from a form measuring 16 15/16 in.

width with a ¼ in. cork and a fibre board. The type width in the molded mat stretched 1/16 in.; the air dried shrinkage was 9/16 in. and the scorch shrinkage was ¾ in. in the mat.

Mat B was rolled under the same conditions, but the key was pulled from the shaft of the upper roller. This gave no stretch in the mat after molding, instead of 1/16 in. as in Mat A. It had 11/16 in. shrinkage after air drying instead of 9/16 in. and ⅞ in. shrinkage after scorching instead of ¾ in. as in the case of Mat A. Only variable was pulling the key. This test was repeated many times and the result was always the same.

The next tests were made on the same Duplex roller without pulling the key and show the variations due solely to variations in molding combination. A ¼ in. cork and a fibre board were used as the control or standard molding combination and a ¼ in. coprene (synthetic rubber) blanket was used as a variable.

With the same form, the cork and board combination again gave 1/16 in. stretch to the mat across the width of the type molded area, 9/16 in. air dry shrinkage and ¾ in. scorch shrinkage. The coprene molded mat did not stretch across the type area, gave 11/16 in. air dry shrinkage and ⅞ in. scorch shrinkage. These tests show, the speaker said, that molding equipment and molding combinations do affect shrinkage. Corrective action to prevent mat stretch, he said, is to buy a modern press or pull the key on the old roller or use a combination of cushions that will permit slip to take place between roller and mat.

The evil that stretch does, the clinic was told, is to alter the shrinkage, wear the reverse dots, distort the type and set up uneven tension in the mat.

Press Packing

SOFT ink rollers and soft press packing demand maximum space depth which can be obtained with soft molding combinations, with a sacrifice in cup depth. If press rollers are firm and the packing semi-hard, space depth becomes of minor importance and all effort can be focused on maximum cup depth, the speaker said. As far as the stereotype operation is concerned, the best printing plate is obtained when the cup depth is at a maximum and the space depth at minimum, he added.

First Impression Printing

MR. GEBHARD discussed *First Impression Printing*. He pointed out that the first impression printing is just as good as the second until the second side of the web is printed and declared that this drop in quality is mainly due to offset, although show-through and strike-through also have a role in the trouble. This offset is caused when the first impression ink is transferred to the second impression drawsheet and then back to the second side of the web.

It is obvious, he said, that the drawsheet plays an important part in offset and that, therefore, if a drawsheet could be developed that would be absolutely ink-repellant all first impression offset could be eliminated.

In tests shown by means of slides, Mr. Gebhard demonstrated that most poor first impression printing is due to offset; that there is a difference between the amount of ink picked up on a regular drawsheet and a glass beaded one and that the drawsheet with the least affinity for ink gives the least offset. In these tests, a conventional rubber blanket and a special glass beaded drawsheet were used. The difference, in favor of the glass beaded sheet, were due, it was apparent to the smaller surface of the second impression drawsheet which was exposed to the first impression ink.

The mailing room clinic was devoted to explanations and demonstrations of

---

If some helpful device has been developed in your plant, why not pass it along informally in a letter to the editor. Readers will appreciate hearing from you.

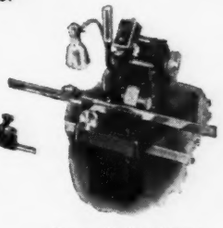
FOR TOP ACCURACY... Specify ROUSE
TIME-SAVING EQUIPMENT FOR PRINTERS

Precision-made Rouse Tools will contribute to extra profits by helping you to maintain high quality output for your entire plant. It pays to order Rouse Tools for replacements.

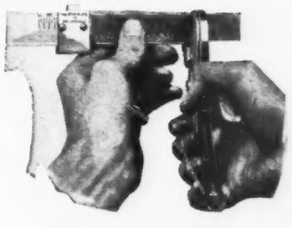
Write today for illustrated catalog of Rouse Equipment and Hand Tools.

No. 2 Band Saw

No. 40 Lead and Rule Cutter



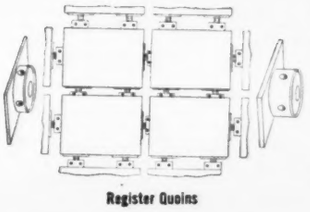
Economy Vertical Miterer



Slug Clippers

Sennett Positive Assembler

Hand Miterer



Register Quoins

Newspaper Wall File

Composing Stick

Line Gauge

Make-Up Rule

H. B. ROUSE AND COMPANY
2214 N. Wayne Avenue, Chicago 14, Illinois
"50 YEARS OF SERVICE TO THE PRINTING INDUSTRY"

the Addressograph mailing and addressing equipment by C. C. Sollitt and L. W. Churchill, both of the Addressograph company and a discussion of the Wallastar Automatic Bundler, by A. E. Katz of the Toronto (Ont.) *Star*. Co-chairmen for the clinic were Harry Carver, Minneapolis *Star* and *Tribune* Mailing Room Superintendent and Joseph Mayen, St. Paul *Dispatch* and *Pioneer Press* Mailing Room Foreman.

Annual Banquet

The Annual banquet concluding the second day's activities was addressed by Joyce Swan, Vice President, Minneapolis *Star* and *Tribune*, who discussed public relations within the plant and public relations between newspaper employees and the public.

Composing Room Clinic

THE Composing Room Clinic, final one of the conference, was held from 9 a.m., Feb. 14, until noon. Chairmen were William J. Davies, *Star* and *Tribune*, and Tom O'Dea, Jensen Printing Co., with Robert Lee, St. Paul *Dispatch* and *Pioneer Press*, presiding.

The first speaker, W. H. Griffin, Sales Manager, Mergenthaler Linotype Co., discussed *The Future of the Composing Room*. He urged that plant mechanical executives, while waiting for improvements in the tried and true methods and equipment, which, he cautioned, are likely to be slow in coming, should make the best use possible of existing equipment by improving the efficiency with which they are used, scheduling work closer and cutting out steps wherever possible. It is necessary to do this in order to make a profit against rising cost of operation, he said.

Under study as a possible means of saving a step, he said, is a plastic plate molded direct from type. In general, the machinery manufacturers are striving toward faster automatic equipment and are bringing into their research organizations men familiar with electronics and similar developments, with a view to more automatic operation.

Howard N. King, consultant on typography, Intertype Corporation, next spoke on *The Future of Advertising*, emphasizing that rising costs have created a perilous situation for many newspapers and resulted in many mergers and consolidations. He urged use of more engineering principles in newspaper mechanical departments in order to increase efficiency and minimize the effects of rising wages. He also expressed the opinion that newspapers must continue to be made more easily read in a hurry with wider columns and larger type.

So well was Mr. King's display of newspaper advertising pages received on his previous appearance before the Northwest Mechanical conference that he repeated it by request, showing examples of what to do and what not to do and the face lifting which color can give to advertising.

The next speaker, Enoch Koynen of the Tribune Publishing Co., Albert Lea, Minn., discussed *Operation of the Smaller Composing Room*, advising that small newspapers adhere to a rigid schedule to permit of ample time for advertising and news copy to be handled by the composing room. Every page should be dummied for ads and news so that the make up men will not have to waste time in trying to determine where the various items are supposed to fit in. Such a newspaper cannot operate efficiently, he said, unless there is the highest cooperation between all departments and with the front office. He urged that all machines be kept in good condition that the men who work with them may be able to work efficiently.

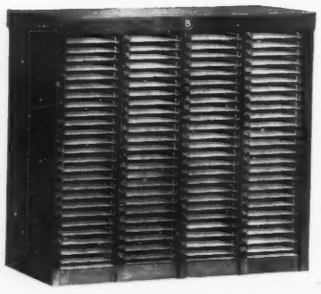
Next speaker was Tom Brain, Ad Foreman of the Duluth *Herald* and *News Tribune*, who spoke on *Daily Composing Room Problems*. He enumerated the problems of poor copy, late copy, last minute ad changes etc., with which every composing room is familiar. He urged more cooperation between departments and mentioned as a *must* in equipment, a slug trimmer to facilitate corrections in ads. Costs can be reduced, he said, by analyzing every operation in every mechanical department and then seeking means to reduce the number of steps required to perform those operations.

Final speaker was John Moffett, Advertising Director of the Minneapolis *Star* and *Tribune*, speaking on *Advertising and Composing Room Problems*.

Have you

ENOUGH

HAMILTON Galley Cabinets?



● **It's easy to determine when more galley storage is needed. If your compositors now spend *extra* time hunting for forms that should be easy to locate . . .**

. . . or unpiling and re-piling standing forms to find sorts, or sliding forms on and off galleys to pull proofs . . .

. . . or if lock-up men have to dig into piled-up forms to locate missing pages with risk of pied forms to be re-set at *your* expense . . .

. . . then you need additional Hamilton Galley Cabinets.

Hamilton Galley Cabinets are built to carry full loads without sag or sway, jig-assembled for perfect accuracy in run clearances. Backs are 16-gauge steel, ends are 20 gauge, uprights 14 gauge. Runs are 16-gauge band iron fastened so firmly into the uprights they can never work loose . . . spaced exactly right for accessibility and form protection and clearly numbered to make forms easy to index and find.

From nine styles and sizes you can readily select Hamilton Galley Cabinets that will fit best into your own plant layout. All are finished in Hamilton's modern, durable metallic gray that harmonizes perfectly with other equipment in your plant. See your Hamilton Dealer or mail coupon below.

Hamilton Manufacturing Company

Two Rivers, Wisconsin

☐ Send us price and delivery information on Hamilton Galley Cabinets to accommodate_____ size galleys.

☐ Send us free copy of your new Composing Room Layout booklet.

Your Name_____

Company_____

Street Address_____

City_____ Zone_____ State_____

HEAR YE!
HEAR YE!

ANNOUNCING

"REGAL" MONOCORK

by NEW ENGLAND

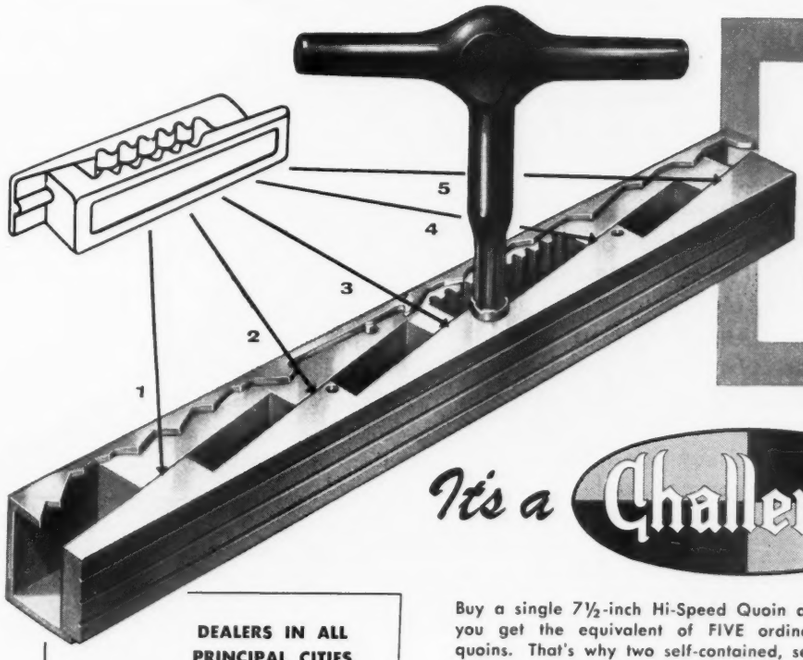
An entirely new press blanket designed to minimize creeping and yet still be an ideal printing cushion.

YOU BE THE JUDGE!

NEW ENGLAND NEWSPAPER SUPPLY CO.

BRANCHES:
NEW YORK
CHICAGO
SAN FRANCISCO
TULSA

164 FREMONT STREET • WORCESTER, MASSACHUSETTS



BUY ONE-GET FIVE!

It's a Challenge HI-SPEED QUOIN

DEALERS IN ALL PRINCIPAL CITIES

Here's a table of equivalents measuring the efficiency of Hi-Speed Quoins in terms of ordinary quoins.

SIZE	HI-SPEED		ORDINARY
3 "	1	equals	2
4½"	1	equals	3
6 "	1	equals	4
7½"	1	equals	5
9 "	1	equals	6
10½"	1	equals	7
12 "	1	equals	8

Buy a single 7½-inch Hi-Speed Quoin and you get the equivalent of FIVE ordinary quoins. That's why two self-contained, self-locking Hi-Speed Quoins can do the work of four to eight ordinary quoins with savings in time up to 80%.

And, Challenge Hi-Speed Quoins result in better, safer lock-ups. They eliminate slippage, reglets, work-ups. Expansion is DIRECT, a point at a time, with an easy-to-read indicator that lets you unlock and relock a form and still hold register.

For fast, safe, accurate, press or foundry form lock-ups, order Challenge Hi-Speed Quoins from your dealer today! All 7 sizes now available with new ball type lock and improved register indicator.

THE CHALLENGE MACHINERY COMPANY

Main Office and Factories: Grand Haven, Michigan

618 ***"Over 50 Years in Service of the Graphic Arts"***

To Lock Small Chase on Cylinder Press

E. O. Nelson of Hall Printing Co., Waco, Tex., locks small chases securely in large cylinder press bed.

MANY firms have jobs that take a small chase but are more profitable to run on a cylinder press. To do this means that there is considerable space on the press bed that must be filled up some way if the single chase is to be securely locked on the press bed.

E. O. Nelson, owner of the Hall Printing Co., Waco, Tex., uses a method of locking a single small chase on a cylinder press that prevents the furniture buckling up. The chase with the form in it is put on the press bed in the usual position when a small form is run. A piece or two of furniture is put between the chase and the lockup screws.

Then instead of filling the surplus space between the other side of the chase and the inside edge of the press bed, a long piece of wood furniture or two shorter pieces are laid along the other side of the chase. Another long piece or two shorter pieces are laid against the inside edge of the press bed. Then the space between these two is filled with two pieces of wood furniture, 10 picas wide, and whatever length is necessary to reach from the piece of wood furniture at the inside of the press bed to the wood furniture against the side of the chase. These two pieces of 10-pica wood furniture are put on the press bed at right angles to the inside edge of the chase. The chase can then be tightened on the press bed with no fear of buckling or loosening. This method of locking a small chase on a flat bed press has been used with two pieces of wood furniture measuring as much as 80 picas long.

On a job press, especially one equipped with a self-feeder, the same idea can be used in locking up a small form in a large chase. A piece of wood furniture can be put between one side of the type form of the chase. Then a piece of wood furniture can be placed on the other three sides of the type form with another piece of wood furniture against each of the other three sides of the chase. Then 10-pica widths of wood furniture of proper length can be laid in to fill the spaces between the three pieces of wood furniture that were laid against the three sides of the chase to the three pieces that were laid against the other three sides of the type form. Sufficient space must be left for the quoins to be laid in after which the form can be locked with assurance that it won't buckle during the running.

Other readers of *Printing Equipment Engineer* will appreciate hearing about any time-saving device developed in your plant. Just write informally in a letter addressed to the editor, 1276 West Third St., Cleveland 13, O.

SNPA Conference

(Continued from Page 28)

Mr. Woodman remarked that it is not always the fault of the advertising department when ads have been thrown into the metal cart. It might be that during the next day the advertising department will call up an advertiser and ask him for the copy for his ad. The advertiser might say that he is very busy and for the paper to repeat the ad which appeared during the previous day. In such cases as these, obviously, it is neces-

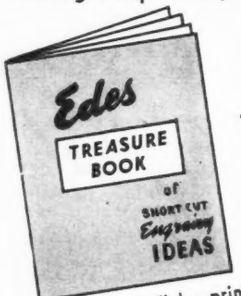
WOW! $1,600.00 In Valuable PRIZES

HURRY! MAIL YOUR IDEA TODAY

Edes EXCHANGE OF SHORT-CUT Engraving IDEAS PRIZE CONTEST

Closes April 1st, 1949

It's a "smash-hit". Ideas are pouring in. Where is your short-cut? Your chance of winning one of the 10 valuable prizes is as good as anybody's. All ideas must be postmarked before midnight April 1st, 1949.



Who wouldn't swap ONE short-cut, trick, bypass, idea, method or practice — on any phase of engraving — for 20 or 30 ideas? No red-tape, no entry blanks. Just write your idea on any piece of paper 8½ x 11, write name, address and occupation, also firm name in upper left hand corner — mail to Prize Contest Editor, c/o The Edes Manufacturing Co., Plymouth, Mass. Contestants select by ballot the 10 best short-cut ideas. You can enter — you can win!

All contest ideas will be printed in the "Edes Treasure Book" — you are entitled to a FREE copy on request. SEE YOUR BULLETIN BOARD OR ASK YOUR PLANT MANAGER FOR COMPLETE PRIZE CONTEST RULES or write.

1st PRIZE: Emerson Phonoradio — Television FM-AM Console valued at $560 including $50 installation allowance.

2nd PRIZE: Emerson Television Consolette valued at $400 including $50 installation allowance.

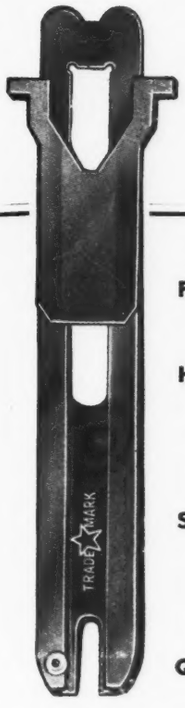
3rd PRIZE: Emerson Television Table Model valued at $350 including $50 installation allowance.

4th, 5th, 6th, 7th, 8th, 9th and 10th PRIZES: GE Electric Blanket valued at $40 each.

EDES Engraving METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

EDES MANUFACTURING CO.
PLYMOUTH, MASS.

STAR...
Unqualifiedly
THE BEST SPACE BAND
Money can buy!



FINEST STEEL to be had for the purpose

HARDER than any other space band yet made. Yet actually more resilient, hence stronger and longer-lived

SUPER-ACCURATE Sleeves interchangeable on other wedges—and vice versa. No fitting required in replacing

QUICK CHANGE SLEEVES Hollow head (hex.) stop pin permits change-over in a jiffy. Left turn with special pin wrench furnished, and off she comes.

ECONOMICAL You buy sleeves or wedges and do your own repairs simply and quickly

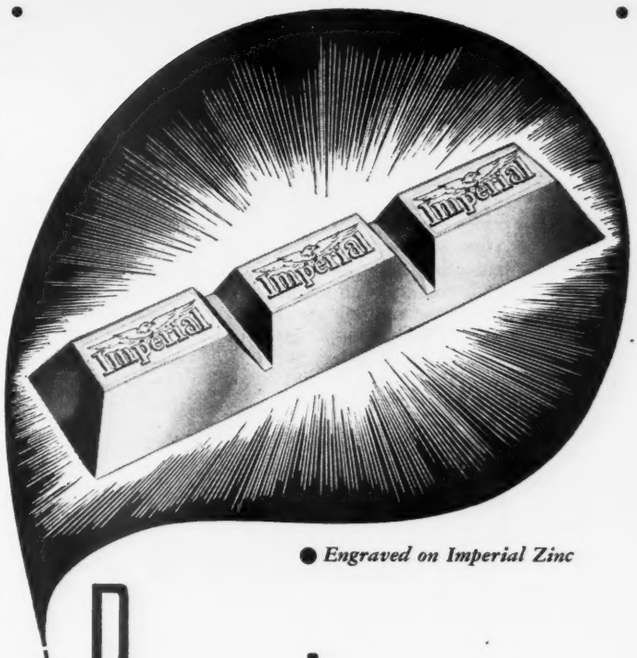
AVAILABLE in Extra Thin, Thin, Medium, Extra thick, special (Teletypesetter) and Special Thin.

Write for circular that tells the whole story

PRECISION TRADE ★ MARK

LINOTYPE PARTS COMPANY

INCORPORATED
Factory and Main Office
SOUTH HACKENSACK, N. J.
Branch Office: 1327 BROADWAY, KANSAS CITY 6, MO.
CHICAGO • MINNEAPOLIS • DENVER • NEW YORK • BOSTON



● *Engraved on Imperial Zinc*

Beyond

the certainty of recognized quality, it is the *added* advantage you enjoy when you specify "Imperial" that has made Imperial Type Metal first choice with users who have "tried them all."

Imperial Type Metal *plus* Imperial Service provides for you positive, continuing assurance of metal uniformity . . . prevents the headaches and extra costs of imperfect casts, machine shutdowns and other production losses due to metal deterioration . . . relieves you of guess work tinkering and adjusting to keep your metal at exactly the right specifications to suit *your* machines and *your* work.

You'll find the Imperial Type Metal Man a good man to know. He's a specialist in metal problems. Without obligation he will study your requirements and recommend the particular Imperial Service that will prove the most advantageous for you. Write us and we will be glad to put you in touch with him.

Imperial

TYPE METAL COMPANY

SERVING THE GRAPHIC ARTS *Exclusively*

PHILADELPHIA 34 • NEW YORK 7 • CHICAGO 50

sary to cast the ad from the mat of the day before, especially when there isn't time to reset the entire advertisement in the composing room.

Another executive stated that his firm charges $4.50 per hr. for author's corrections, but that in the case of minor corrections, no charge whatever is made.

One executive asserted that he still thinks the composing room is the testing ground for student ad writers.

Mechanical Supt. Woodman also spoke of the advantages of educating new advertising salesmen as well as ad copy writers in department stores. He discussed at some length Luther Wright's plan which is in effect on the New Orleans (La.) *Item*.

Another plant executive stated that if the advertiser doesn't get his copy in 12 hours before the deadline, he doesn't get to see a proof of his advertisement on the first edition.

One of the most helpful of all procedures is the case of the one newspaper which took the advertising people to lunch and then escorted them on a trip through the plant to show how ads are handled and how much time is required to make corrections.

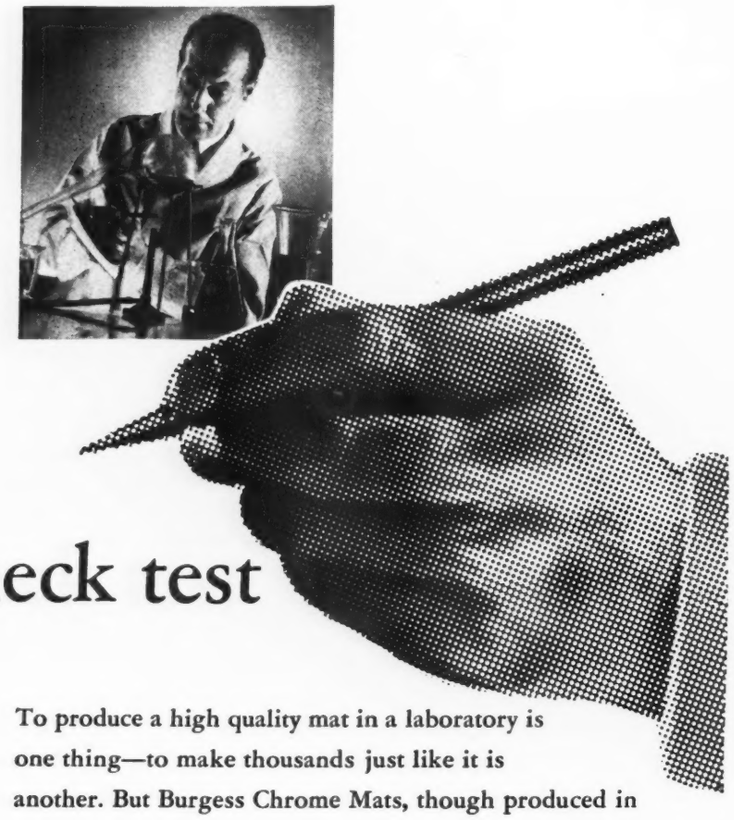
Another composing room executive was rather pessimistic about deadlines. He said copy gets into the composing room all right but too many advertisers send copy in just before the stipulated deadline.

Mr. Woodman again spoke upon the subject of flexibility in handling advertising composition. He said that in the plant of the Fort Worth (Tex.) *Star-Telegram*, the compositors in the ad alley anticipate the advertiser's changes in copy by using small base sections and short slugs to facilitate quick changes in the shortest possible time.

In answer to the question: *How many days are standing ads used before being reproduced?* Houston Awalt remarked that this is one of those things that might be due to local conditions. He states that he prevents difficulty in this respect by resetting some advertisements everyday as needed. That is, effective type is watched by the composing room and is automatically reset so that there will be no complaint from the business office.

With respect to handling live ads which call for 2, 3 or more insertions a week, someone wanted to know how these could best be handled. In one small plant the advertising salesmen on skip date ads send three orders (if the ad is to run three times on skip dates); in turn, the composing room uses finger nail polish on the non-printing area of the advertisement to indicate that the ads are still alive so that they will be inserted in the form on the proper day. Finger nail polish will not be dissolved by gasoline. The makeup man compares the order blanks with the standing ads.

In another composing room, slugs bearing the insertion dates are cast on slugs. The slugs are cut down type high and put in a non-printing areas of the form.



check test

To produce a high quality mat in a laboratory is one thing—to make thousands just like it is another. But Burgess Chrome Mats, though produced in volume, are absolutely uniform; in moisture content, in shrinkage, in quality reproduction.

Check . . . test . . . check . . . test! This is the formula behind Burgess quality and uniformity. At the Burgess plant—actually a huge laboratory—every step in manufacture is carefully controlled, and numerous checks and tests are constantly being made. This laboratory precision results in the superior mat upon which stereotypers have come to rely.

A Laboratory Product BURGESS Chrome MATS

BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

FREEPORT, ILLINOIS

Machinists

AT THE Machinists' meeting, a number of helpful suggestions were made during a mutually informal discussion. For those who seem to think it necessary upon occasion to wash or bathe a font of matrices because of oily or greasy contamination, it was suggested that NL Concentrate be used in the proportion of 60% warm water and 40% of the soap. The solution is placed in a pan. A white fibre hand brush is used to brush over the matrices gently while in the solution. It is claimed NL Concentrate is not harmful to matrix side walls. After having been cleaned, the matrices are thoroughly flushed with clear hot water and may be dried with compressed air.

Some objection was voiced with respect to the use of carbon tetrachloride for cleaning greasy matrices for two reasons: (1) It is toxic to many people and it leaves a slight and objectionable residue on the matrices.

John L. Davis, Asst. Director of Sales, Mergenthaler Linotype Co., remarked that such washing of matrices could be avoided by keeping the machine clean and also by checking the pot pump stop for correct adjustment once a week.

35
YEARS EXPERIENCE

New Plants

Remodeling and Rearrangements

Surveys and Reports

Material Handling

MORTON L. PEREIRA & ASSOCIATES

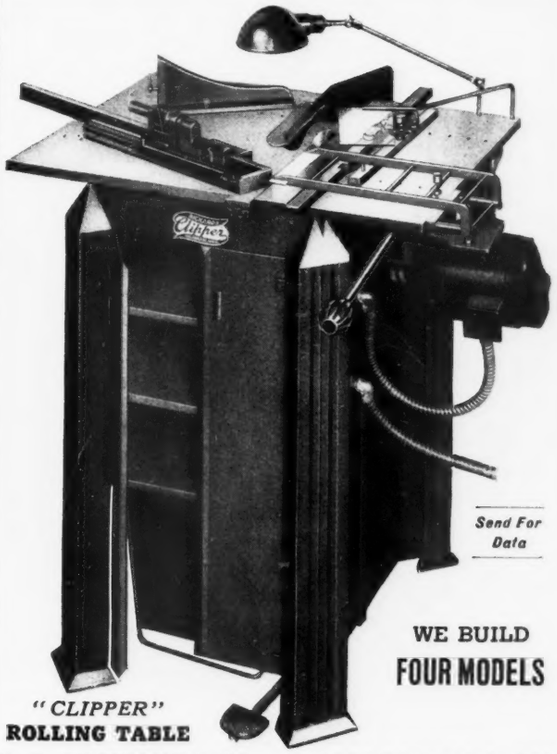
Architects and Engineers

100 West Monroe Building Chicago 3, Ill.

Every Wood Dry Mat goes through a rigorous inspection and testing routine before it can be shipped. That's why so many stereotype craftsmen depend on Wood for easy handling and fine printing.

WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.
New York City Office:
551 Fifth Avenue

RICHARDS' STEREOTYPE SAWS



Send For Data

WE BUILD FOUR MODELS

"CLIPPER" ROLLING TABLE

J. A. RICHARDS CO. • KALAMAZOO 60F

TYPE METAL REMELTING FURNACES

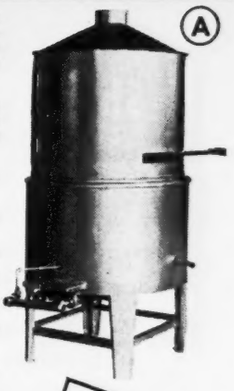
(A) 'Surface' Type Metal Remelting Furnace equipped with Atmospheric Burner and hood. Available in capacities up to 2500 pounds of metal.

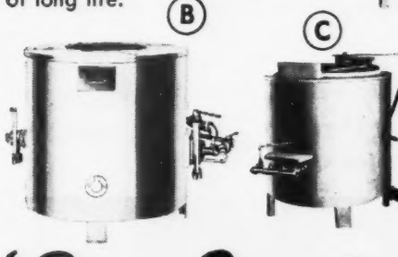
(B) 'Surface' Type Metal Remelting Furnace equipped with Pressure Burner. Available in capacities up to 3200 pounds of metal.

(C) Furnace equipped with atmospheric burner and bottom outlet.

(All types can be equipped with hood)

'Surface' Gas-Fired Furnaces for type metal remelting are designed to provide the industry with an efficient, rapid remelting furnace of long life.





WRITE FOR BULLETIN SC-130

2634A

'Surface' *Standard Rated* FURNACES

SURFACE COMBUSTION CORPORATION, TOLEDO 1, OHIO

The treatment of mold wipers came up for discussion. One plant machinist uses 3-in-1 oil and dry graphite on the front wiper. Also, it was explained that front mold wipers could be treated by roughing up the felts with a steel wire brush, saturate the felts with gasoline and rub in dry graphite thoroughly. Back mold wipers may be once a week treated with a steel wire brush, rule mold oil or mutton tallow in judicious application.

The problem of twin 2 pt. leads breaking on an Elrod came up for discussion. One machinist stated he simply takes a length of the strip material which is cast in the mold giving trouble and scrapes or shaves off the side of the body a trifle; then he works this strip material up and down slightly after applying kerosene so as to remove the corrosion which may occur inside the rule mold body, after which the mold is returned to its oil bath. Another machinist stated he simply gives the mold a treatment with Vita-Flux.

Some discussion arose about the proper technique to use in replacing an Intertype baffle mouthpiece on the electric metal pot. After some study, one machinist stated when he replaced the mouthpiece on the crucible he turned up the four top screws to finger tightness. Then he turned up the face screws evenly to a snug contact. Final operation consists of turning the face screw heads until they were home, finally tightening down the four top screws. In this manner, and without the use of litharge or other sealer, he secured a tight iron to iron contact of mouthpiece with the crucible.

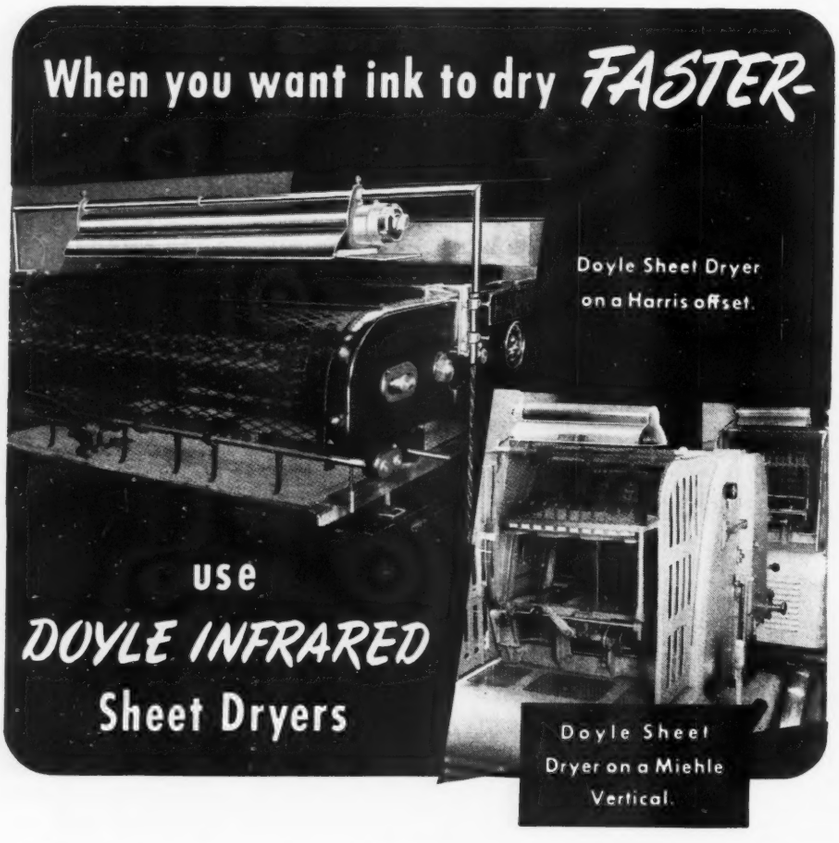
During the discussion related to display and headletter slug solidity, Verne Williams, Mechanical Supt. of the Topeka (Kas.) *Star*, asserted that 90% of metal troubles can be traced to the metal remelting pot. Too often, the remelting chore is one of those things taken for granted. Without conscientious attention to the job and in some cases proper supervision, an entire battery of line-composing machines will produce faulty slugs. Other results of such neglect are mouthpiece corrosion, type pages will appear to be afflicted with "small pox," slugs will sink under stereotype mat molding pressure, and the machinist may spend considerable time hand-polishing molds at the bench. In one instance, he mentioned that the remelting man permitted the metal temperature in the remelting pot to reach a 900 deg. temperature.

To eliminate the metal trouble, a conscientious man was hired and instructed. A metal temperature control was installed in the pot. The remelting man now mixes and pours the metal at 650 deg. temperature. The mixing operation is faithfully followed through for 15 or 20 min. each pot. Analysis of the metal showed that it contained 4.15% tin with approx. 12% antimony. The remelting man also inspects the slugs before dumping them into the pot for matrices, gum wrappers, nails, zinc cuts, etc. Flux is used regularly to free suspended "dirt" in the metal.

Mr. Davis remarked it is unfortunate that chemical analysis does not show the amount of suspended "dirt" in the metal. Often, metal will be reported as in excellent condition, but the metal and the machines will work much better if foreign matter is removed.

During the discussion about oilite bearings on line-composing machines it was the opinion of several machinists that a common oil hole should be drilled in the bearing, afterwards treating the bearing just like any plain bearing.

W. J. Dowell, Chief Machinist, Newspaper Printing Corp., Tulsa, Okla., in answer to the question respecting yearly maintenance costs per machine in the composing room, stated that he had approximated his costs for the past year —the cost ran $8 per month per machine.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Pressroom Session

THE Pressroom Sessions of the Tulsa Conference were presided over by G. N. Guthrie, Mechanical Supt., Little Rock (Ark.) *Gazette*. A number of questions were presented on the program which were devoted to specific difficulties in pressroom operation and adjustment such as the use of lead-in tapes on unit type presses, glass beaded draw sheets, washing up presses for color units and the elimination of static electricity in the paper web.

With respect to the glass beaded draw sheet, one pressman stated that he could

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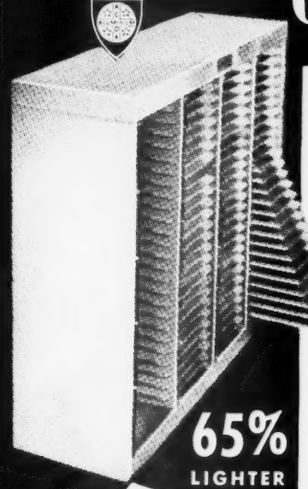

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10½" x 23½"	95c ea.	89c ea.	
8½" x 23½"	90c ea.	79c ea.	75.00
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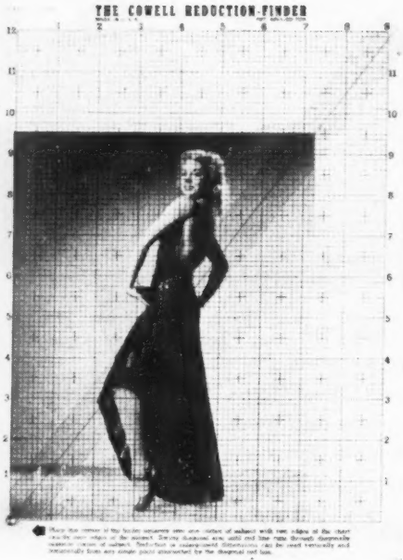

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see its value on papers which print at 36,000 per hr. or faster but below that number of impressions, couldn't see the value of a glass beaded draw sheet in presenting offset on first impression printing.

A number of methods for washing up presses for colors were explained. A number of palliatives for neutralizing the effects of static electricity were discussed such as the use of metallic core tinsel, the setting of buckets of water on the press running boards and crumpled up newsprint immersed in the solution, the wetting of the ends of paper rolls and the like.

Goss Equipment Improvements

Edwin Yagow, Southwest Representative for the Goss Printing Press Co., discussed recent improvements in Goss newspaper printing presses. "Printing press design," said he, "of necessity, moves ahead slowly as compared to some other production machinery. Developments mentioned were the Uniflow folder, pre-loaded tapered roller bearings on printing cylinders and form rollers which also take out end play to aid in holding color register, a splined fit of certain gears on shafts which eliminates key and keyway, presses completely equipped with ball and roller bearings including inking roller sockets, all gears completely enclosed and running in oil, color plate registering mechanism on plate cylinders, tension plate lockup, continuous feed ink system and Colortrol method of ink adjustment.

Among the advantages claimed for the tension plate lockup, Mr. Yagow stated that in addition it provides a means of overcoming the centrifugal force which causes plates to buckle away from the cylinder and multiplies the number of impressions which can be obtained from a stereotype plate before the face wears to tender the print objectionable by perhaps 10 times.

He stated that the continuous feed ink fountains hold color more uniformly at all speeds, and when changing from one

By all tests

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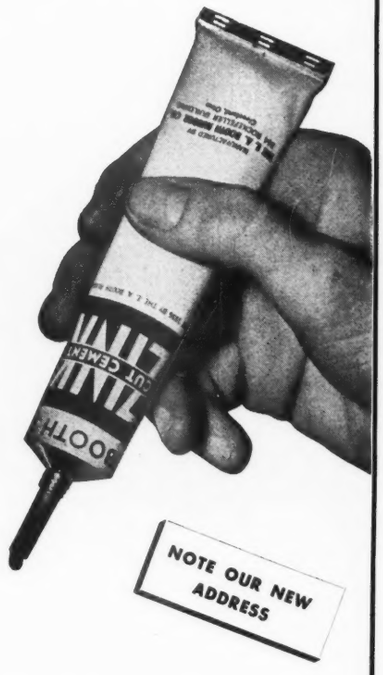

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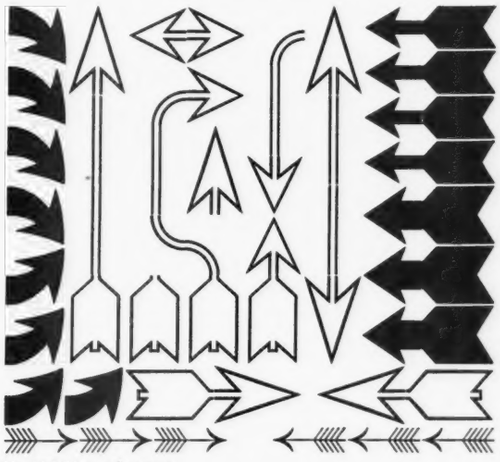

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speed to another than any other distribution system tried by his company. By means of a lever the in flow can be cut off from the fountain to those pages which are not being printed. The ink flow can be cut off entirely without scraping the fountain knife blade against the fountain roller.

He discussed the Goss Colortrol method of setting the ink flow by electric buttons. The buttons can be located most any place on the unit or they can be located for remote control. At the present time the push-button panel is located at a convenient height from the floor on the end of the unit. Overhead color fountains are also adjustable from pressroom level.

Mr. Yagow explained that the Standard Tubular press has been redesigned and is now called the Goss-Duplex Dek-A-Tube. Shafting has been substituted for a good many gears on the gear side of the press. Continuous feed ink fountains, the Uniflow folder, and other improvements have been incorporated in the Dek-A-Tube press.

Chairman Guthrie then stated that Walter Cooper, Midwestern Manager, R. Hoe & Co., had been scheduled to deliver an address on Hoe Equipment Improvements. Mr. Cooper was unable to be present but in his stead, Richard Schrik, Assistant to Mr. Cooper would deliver Mr. Cooper's address. Summary of the address is as follows:

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By distributing color facilities throughout the black equipment, the advantage of easy straight-in leads and complete choice of color page location are possible. In arranging two adjacent units for color, prewar design permitted running the web in only one direction through the two units, which would permit printing color on the second impression side of the web only or on the first impression only, but you could never have a choice of either. Today's presses are so designed that they will accept this change in direction. Thus when this principle is followed through on all units, we are able to produce full color on any page and in any size product up to the capacity of the press.

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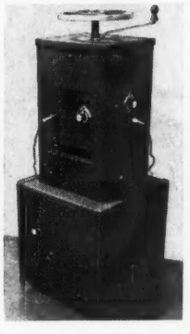

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compensators and lead rollers to print through a combination of three units, three colors and black on every page of an eight page straight run product or a sixteen page collect product.

Our presses are equipped with ink pumps and rails which deposit the ink on to the ink distributing system. We have designed one of the pumps in this rail to handle color. We have now designed a simple gear arrangement which permits the reversing of the pump by the operators in a minimum of time. This is accomplished by loosening two screws on a gear housing, turning the housing by hand 180 deg., and locking the housing in position. There is a simple clutch which is connected and disconnected by throwing a lever.

Our drive arrangement for the units have been improved. The reversing of the unit is now made by turning an indicated screw which throws the reversing gears in and out of mesh and in such fashion that the operator knows definitely when the gears are properly meshed.

Our method of lubricating has been made almost entirely automatic.

Another feature is the method for setting cylinder impression. It consists of a locking worm working on an eccentric cylinder box and is equipped with a visible dial indicator reading graduated thousandths parts of an inch.

Our plate lock-up has been improved and designed for speed. We are using four clips. It is operated by use of a lever and a single stroke will open or close the lockup.

In the Hoe newspaper folder, we have tried to improve the operation of the transfer run by endeavoring to eliminate the old goose neck leads and instead arrange our leads straight across from one side to the other. A device permits correcting the fold of the product while the press is on speed by a hand wheel which changes the relation of the folding blade to the folding cylinder. At the same time, we have designed an arrangement that permits moving the pin point cams so that as you change the fold, you may adjust the pin point operation to meet the needs of the corrected fold and thus prevent sending the product out with the elongated pin hole marks at the end.

We have developed new features in the Hoe reel tension and paster device. The Hoe tension device is electrically operated and we not only keep a uniform tension through a running belt arrangement whose speed and retarding action is controlled from the main drive shaft of the press, but we also are now able to control the core tension electrically.

Thus in the transition of tension control, from the belt control to the core tension control, and to the new running roll at the time of the splice, we are able to keep the tension uniform at all times.

These controls are automatic and the transition from one control to the other is accomplished through push-button operation. In other words, the device keeps control of the web rather than leaving it to the best guesswork of an operator. The advantage lies in the fact that electricity is able to move at the rate of 186,000 mi. per sec., and we humans sometimes take 5 min. to go from here to there.

Photoengraving Session

ARCH DIXON, Photoengraving Supt., Oklahoma Publishing Co., Oklahoma City, Okla., presided over the Photoengraving Sessions. Most of the photoengraving discussion was related to the use of color in newspapers. Also discussed was the technique used in printing direct from zinc and magnesium plates mounted on a stereotype metal saddle. Part of the discussion was devoted to the lack of proper skill upon the part of the photoengravers and also to the lack of cooperation or coordination among the several mechanical departments concerned with newspaper color printing. It was brought out prominently that the use of color register marks is desirable upon all plates so that the stereotype and pressroom departments can be helped to obtain the best printed effect. It was the consensus of opinion that educational work would cure and would eliminate many of the problems presently existing. Particularly, with respect to the heads of the mechanical departments concerned getting together.

Chairman Dixon observed that "the further we get into color the more important will be the ink question and the handling of the ink in order to secure proper proofs." It was observed that, for instance, if one pressroom superintendent orders ink from a new firm, then doesn't advise the photoengraving superintendent about the change in manufacturer, trouble will result in the proper matching of color. The ink man should be sent a sample of the paper upon which the color subject is to be printed and he should furnish ink of proper viscosity so that the ink used in the press and the ink used in the proof press would help to secure proper color proofs.

One executive complained that the boy on the proof press is unsupervised. He "piles on" the ink and the ink man matches the color from this proof. He asserted, "as a result, no printing press can carry that much color."

Chairman Dixon feels that the photoengravers have been at fault. He advocated intensive education to enable the engraver to furnish proofs that will be useful in the pressroom.

G. C. Roper, Pressroom Supt., Oklahoma Publishing Co., during a discussion about direct printing from photoengraved zinc plates, stated that in his plant the 16 ga. (0.065 in.) zinc plate is mounted on zinc stereotype metal saddle. The plate is affixed to the saddle with two-sided Scotch tape. The screen is 75 line. In his plant, two plates of each subject are furnished for a run of 250,000 copies or two plates of 125,000 impressions each on two presses. Since the plates are fastened to the stereo plate saddle, the open areas are routed down into the saddle.

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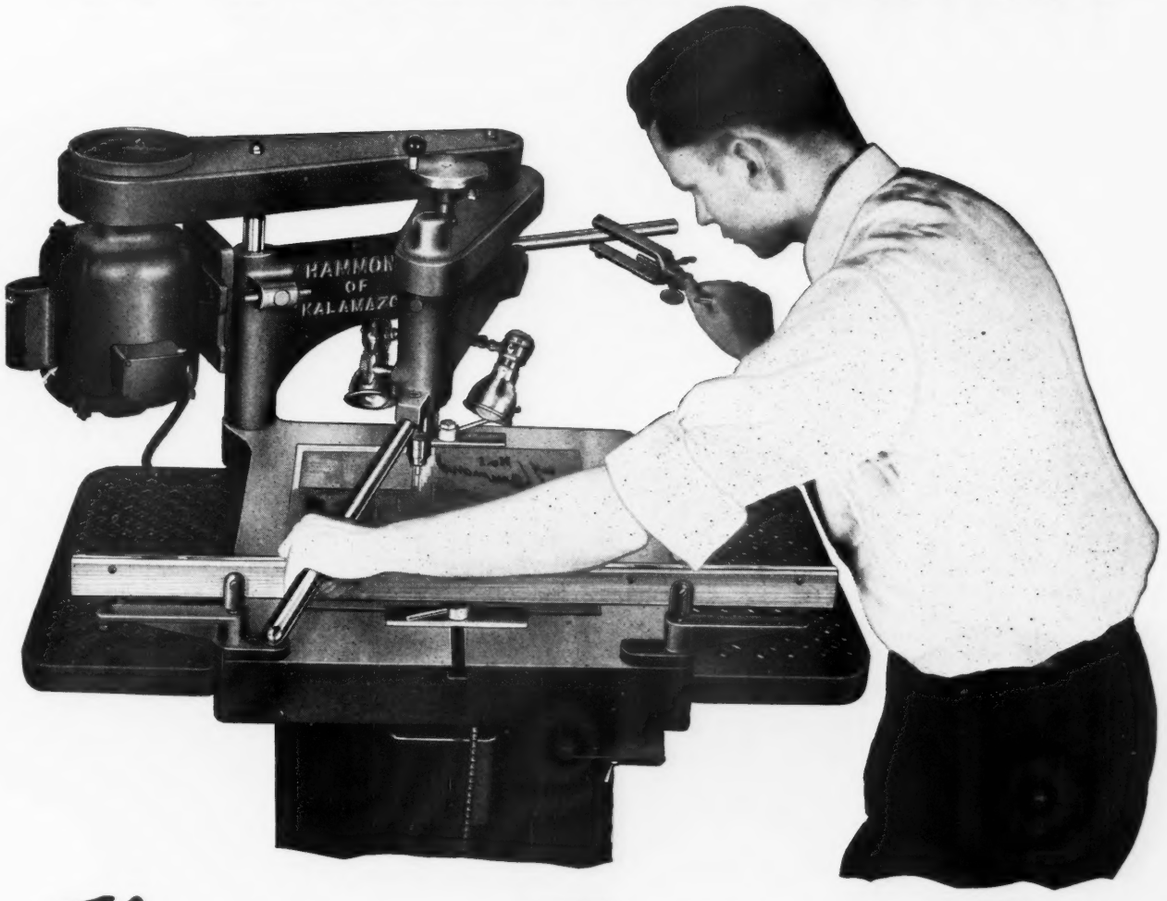

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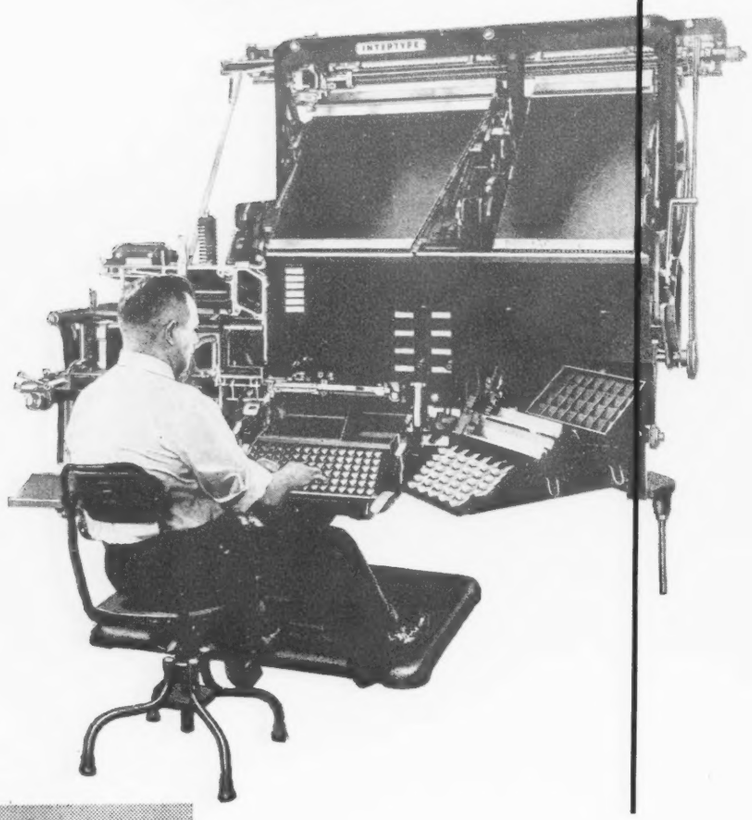

(1)

The Visilite Magazine is lighter than other types of magazines.

TRUE___ FALSE___

(2)

How many faces can you mix in one line without changing magazine positions on an Intertype Mixer Model?

2___ 4___ 6___ 8___

(3)

How many automatic functions has an Intertype Autospacer?

1___ 2___ 3___ 4___

(4)

The ejector blade has to be set each time a different mold is selected on an Intertype Six-Mold Disk.

TRUE___ FALSE___

Answers:

1. The Visilite Magazine—exclusive with Intertype—*is lighter.* A full-length one weighs only 22 lbs. as compared with 57 lbs. for brass and 33 lbs. for aluminum. You can see right through the Plexiglas top plate on the Visilite, so you can count the matrices . . . watch them slide freely.

2. Did you say *six* faces in one line? You were right. And you can assemble them easily from two adjacent main and two adjacent side magazines . . . just with a flip of the finger . . . without waiting for matrices to distribute.

3. The Intertype Autospacer has *four* automatic functions. It justifies, quads left, centers or quads right. All the operator does is set a knob. With the Justified Indention Feature, matter may be indented at either or both sides—equally or unequally—at straight matter speed.

4. That's *false.* On an Intertype Six-Mold Disk, the correct ejector blade is brought into play *automatically,* each time a mold is selected.

Did you answer all these questions correctly? If you did then you know four important ways that the Intertype Machine makes typesetting easier, more efficient and more profitable than ever before. Look to Progressive Intertype.

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